

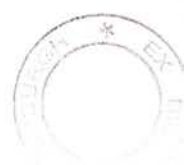
**Drug use and offending: the
relationship over the teenage years**

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PhD

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2007



DECLARATION

I declare that the work presented in this thesis is my own, except where explicitly stated otherwise. This work has not been submitted for any other degree or qualification.

Elizabeth V. Aston

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ACKNOWLEDGEMENTS

I am indebted to my supervisors, Professor David Smith and Dr Lesley McAra, who have advised and supported me throughout the PhD process. As co-directors of The Edinburgh Study of Youth Transitions and Crime I owe them huge thanks for offering me this CASE Award in the first place. On this count I am also grateful to both the ESRC and Lothian and Borders Police. This doctoral research would not have been possible without years of hard work by the Edinburgh Study team in collecting the data that I have analysed here. Susan McVie in particular deserves special thanks for all the assistance she has given me.

Sharing office space, coffee and conversation with Jackie, Mark, Paul, Patrycja and many other PhD students has made the journey all the more enjoyable. I am also appreciative of the time I have spent with Criminology colleagues such as Dr Richard Jones at the Law School. I am grateful to all my family and friends (especially Aisling, Korin and Anna) for their understanding over the last few years. I certainly could not have done this without the support and encouragement of my parents. Heartfelt gratitude to Steve who has kept me going throughout the whole process; by believing in me, feeding me and helping me in every way he could.

Most importantly, this thesis is about the lives of young people living in Edinburgh, without whom this research would not have been possible. Thank you to everyone who filled in questionnaires and or took the time to speak to me about their experiences in depth. I enjoyed every minute of those interviews.

ABSTRACT

Drug use and offending by young people are often assumed to be closely, or even causally related. However, a review of the literature shows that the relationship is complex and dynamic. This thesis aims to describe and explain how drug use and offending are linked over the teenage years. There is a lack of UK based longitudinal research on the topic, especially that which combines quantitative and qualitative methods. This research was conducted in association with the Edinburgh Study of Youth Transitions and Crime, a longitudinal study. For the purposes of this thesis I carried out secondary analysis of six sweeps of annual self-report questionnaire data, from age 12 to 17. I also conducted in-depth interviews with 27 cohort members at age 18 to 19. Findings suggest that the relationship between drug use and offending is stronger earlier (as opposed to later) in the teenage years. The social meaning of drug use changes over this period. Early onset drug users described having ‘nothing to do’ and engaged in drug use and offending in street-based peer groups. Those who did not begin using other drugs until later in their teens portrayed their drug use as a legitimate life experience, quite separate from offending.

Young people’s drug use and offending can be explained with reference to different levels of informal social control and peer group interactions. Opportunity structures, which change over the course of the teenage years, are shaped by socio-structural positions and informal social controls. It is within the context of peer group interactions that the social acceptability of behaviours may be defined, drug use and offending opportunities occur and decisions are made. Involvement in offending weakens social bonds and deepens involvement in deviant contexts, leading to drug use or further offending. However, ‘turning points’ such as starting one’s own family, gaining employment or changing friendship group facilitate the reduction of involvement in offending and drug use. Social bonding and peer group contexts are central to explaining drug use and offending, but drug use can also have a distinct role and be explained differently to offending.

CHAPTER 1: INTRODUCTION

SECTION 1: RESEARCH CONTEXT

‘It’s not like we were stealing for drugs, it was just stealing because of the feeling that it gave us, the adrenaline rush that it gave us when we were in the house’ (Barry, early onset drug user)

This research seeks to offer explanations for drug use and offending and to describe and understand how they are related over the teenage years. It is argued that drug use in the early teenage years may be explained in a similar way to offending; whereas later in the teens drug use can represent something different. The two behaviours are more closely linked earlier in the teenage years than later because, whilst offending is deviant at all stages of the life course, drug use and smoking and drinking are far more deviant earlier on.

A large volume of research on drugs and crime focuses on the prevalence or co-occurrence of these behaviours in certain sectors of the population. However, such research tends to focus on: arrestees (Bennett 1998, Bennett 2000, Yacoubian and Kane 1998); prisoners (Hammersley et al. 1989, Kinlock et al. 2003); probationers (DeLi et al. 2000); those in drug treatment (Anglin and Speckart 1988, Agar 1973, Kinlock et al. 2004); or a combination of these (Jarvis and Parker 1989). ‘Unsurprisingly, the proportion of offenders known to the criminal justice system who have some form of alcohol or illicit drug problem is significantly high.’ (South 2002: 931). There is an acknowledgement that young offenders are at high risk of involvement with drugs (NACRO 2001; Goulden and Sondhi 2001; Hammersley et al. 2003). There appears to be asymmetry in the relationship, in that a high proportion of arrestees are drug users whilst a low proportion of drug users are convicted offenders. Generally, findings suggest that more seriously involved offenders are more likely to use drugs and more seriously involved drug users are more likely to offend. However, such samples are clearly not representative of the general population of either offenders or drug users. Also, the above research does

not tell us much about the linkages between drug use and offending over the teenage years for young people generally.

Nationally representative cross-sectional self-report surveys such as victimisation surveys have been used to estimate the prevalence of drug use and offending in the general population, and in young people (Condon and Smith 2003, Fraser 2002, Murray and Harkins 2006, Roe and Man 2006, Scottish Executive 2002). Findings from the nationally representative 1998/1999 Youth Lifestyle Survey were used to explore the relationship between drug use and offending (Pudney 2002). This research showed that crime tended to precede drug use rather than vice versa (Pudney 2002). However, cross-sectional studies do not enable the examination of causal relationships among variables (Tildesley et al. 1995, Thornberry and Krohn 1997, Wagner 1996, White et al. 1985). Longitudinal research offers a valuable opportunity to explore the relationship in further detail over time and look at within individual change. The majority of longitudinal studies on drug use and offending over the teenage years, however, are U.S. based. As Pudney recognised:

‘At the moment, the UK has no large-scale [national] longitudinal survey that can follow individuals through time, observing the detailed evolution of their offending and drug use’ (Pudney 2003: 183).

Cross-sectional and longitudinal research consistently shows that drug use and offending in adolescence are associated (Huizinga et al. 1989). For example, Tubman et al.’s Florida based research (2004) found that the group of adolescents involved in both substance use and delinquency had significantly higher mean levels of both behaviours. Involvement in delinquent behaviour has been cited as one of the risk factors for substance use (Ljubotina et al. 2004, Tildesley et al. 1995) and vice versa. However, as Adalaf and Giesbrecht (1996) pointed out, it is interesting to look at the groups who are seen to be the exception, for example heavy drinkers who do not become involved in offending, or abstainers or light drinkers who do become involved in offending. As Hough et al. (2001) acknowledged, most illicit drug use in Britain is relatively controlled ‘recreational’ use of cannabis and ecstasy. Hough et al. (2001) estimated that less than five percent of drug users have chaotic lifestyles involving dependent drug use and an even smaller proportion of users finance their use through crime. Most drug users do not commit any crimes, with the exception of

drug-related possession and dealing (Forsyth 1997, Measham et al. 2001, White and Gorman 2000). As White and Gorman (2000) acknowledged, only a small group of individuals are offenders and heavy drug users. Moreover, the National Youth Survey, a nationally representative survey of young people in the U.S.A. who were 11-17 years old in 1977, found that only 1% of the sample was involved in both serious delinquency and poly-drug use (Elliott et al. 1989).

U.S. based longitudinal research findings suggest that the assumption that drugs simply cause crime is misplaced, especially when looking at the relationship over the teenage years (Mason and Windle 2002, Menard et al. 2001, White et al. 1987). It is important to explore the many different ways in which drug use and offending may be linked. However, this has not been adequately researched in a U.K. context. Also, those longitudinal studies that have looked at the relationship tend to focus on establishing the direction of causal effect, rather than taking the lived experiences of young people themselves into account and offering substantive explanations for the relationship. The meaning and significance of drug use and offending, as well as explanations underlying them, are likely to vary over the teenage years.

This ESRC CASE Award research forms part of the Edinburgh Study of Youth Transitions and Crime. In looking longitudinally at the relationship between drug use and offending over the teenage years for a cohort of young people in Edinburgh; and in employing both secondary analysis of questionnaire data and in-depth interviews, this research is unique and fills a gap in the body of UK based research on the topic. It is beneficial to be able to explore the relationship for an entire cohort of young people, from a variety of social backgrounds.

SECTION 2: POLICY CONTEXT

‘The general sentiment that drugs cause crime remains deeply ingrained in the public’s mind’ (White et al. 1987: 716). Yet the literature has consistently shown that the relationship between drug use and offending is complex and dynamic. No single model can describe the relationship for all groups of people. Therefore, it is

important to understand the relationship with reference to the population in question. Worryingly, popular understandings of the nature of the relationship over the teenage years appear to have been influenced by findings relating to entirely different samples, that is heavily involved adult criminals and drug users. Drug use and offending by young people are often assumed to be closely, or even causally, related.

Government policy documents see dealing with drug use as an important means by which to achieve reductions in offending. One of the UK strategic aims in tackling drug misuse is 'to protect our communities from drug related anti-social and criminal behaviour.' (Scottish Office 1999). Tackling drugs is one of the central elements in Scotland's Criminal Justice Plan. It has been claimed that:

'By tackling drug misuse, Scottish Ministers will take a significant step forward in ensuring public safety and reducing reoffending. Action against illegal drug misuse is an essential element of criminal justice reform.'
(Scottish Executive 2004: 9).

The 'drugs problem' is increasingly being framed and managed as a 'crime problem' (Duke 2006). Drug use, even by young people, is increasingly being dealt with by the criminal justice system, for example through arrest referral schemes, Drug Courts and Drug Treatment and Testing Orders.

A recent evaluation of Drug Interventions Programme pilots for children and young people (Matrix Research and Consultancy and Institute for Criminal Policy Research, Kings College 2007) found that due to limitations of the research design and availability of data it was difficult to arrive at conclusions regarding the change in young people's offending behaviour following interventions. The researchers recommended a wider roll-out of arrest referral. However, very few arrested young people tested positive for Class A substances and they concluded that there was insufficient evidence to support wider roll-out of drug testing or Drug Treatment and Testing Requirements. It is within this context that describing and explaining the relationship between drug use and offending over the teenage years is particularly important and relevant.

SECTION 3: KEY DEFINITIONS

One of the challenges in undertaking research on this topic is the variety of different definitions of drug use and offending. Substances may be categorised in various ways; based on their effects on the body¹; legal status; or perceived degree of social acceptability or harm. Currently in the UK drugs are divided into: Class A; Class B; and Class C drugs.² Such classifications are by no means fixed³. In general, concern over drug use tends to be around illegal, rather than legal drugs. As Jock Young recognised, ‘To a large extent we have created an artificial barrier between the two, which is unfortunate in its consequences and incorrect in its assumptions’ (Young 1971: 9-10). It is important to acknowledge that legal substances may also be used problematically. Also, whilst the young people involved in this research were under the age of eighteen, it would have been against the law for them to have been sold alcohol in a pub, off-licence or supermarket. The psychoactive drug most widely consumed by young people is alcohol. It has been described as ‘our favourite drug’ (Parker et al. 1998). Young people often use alcohol along with other drugs, which blurs the distinction between the licit and the illicit (Measham et al. 2001). For these reasons it made sense for this research to consider the use of cigarettes, alcohol, volatile substances, and non-medical use of prescription drugs, as well as illegal drugs. However, the central focus of this research is on drug use and offending, rather than alcohol and cigarettes. Here the term ‘drug use’ is utilised in preference to ‘drug misuse’ or ‘drug abuse’, which are arguably subjective terms. Drug type is merely one element of drug use (Simpson 2003)⁴.

¹ The Institute for the Study of Drug Dependence’s *Drug Abuse Briefing* differentiates between: drugs that depress the nervous system; drugs that reduce pain; drugs that stimulate the nervous system; and drugs that alter perceptual function (ISDD 1999).

² Class A (cocaine, crack cocaine, ecstasy, heroin, methadone, LSD, magic mushrooms and any class B drug which is prepared for injection); class B (amphetamines, methyl amphetamine, barbiturates, codeine); and class C drugs (cannabis, GHB, anabolic steroids, ketamine, and tranquilisers).

³ For example, cannabis was re-classified to Class C (downgraded from Class B) in January 2004, but in July 2007 the government announced another review, meaning that cannabis could be re-classified as Class B. The House of Commons Select Committee report (2006) on the drug classification system concluded that there was a lack of consistency in the rationale used to make classification decisions and demanded a more scientifically based scale of harm.

⁴ Simpson argued that drug using behaviour can be categorised into three groups: recreational use; persistent use; and dependent use. This is done with reference to: regularity (time patterning of use); degree (amount of substance consumed); type of drug (as discussed above); style (method of administration); and centrality (attitudes regarding the place of drug use in the user’s life).

Simply put, crime refers to behaviour that is prohibited by criminal law. Various terms such as deviance, anti-social behaviour, and delinquency may be used to refer to a broader range of behaviours. Here the term offending will mainly be used. In the literature differentiations are made between: types of offending (acquisitive or violent); severity of offending (general/minor or serious); and frequency or volume of offending. According to the European Monitoring Centre for Drugs and Drug Addiction, drug-related crime refers to crimes committed: under the influence of drugs; in order to finance drug use; in the context of the functioning of illicit drug markets; and against drug legislation (EMCDDA 2005: 80). Offences against drug legislation offer the most glaringly obvious example of drugs and crime being related. However, for the purposes of examining the relationship between drug use and offending, it is useful to focus on offences other than those against drug legislation. In this context 'drug-related crime' refers to offences that are in some other way seen to be related to drugs.

Criminal offending and drug use are forms of law breaking, and drinking alcohol and smoking cigarettes underage also tends to involve breaking the law. The most obvious reason for a link between drug use and offending is that they are both forms of deviance. Deviant behaviour involves violating social norms or laws. The normalisation thesis appears to challenge the portrayal of drug use as a deviant activity. The term was coined in relation to increasingly widespread 'recreational' drug use amongst 'conventional' young people during the 1990's (Parker et al. 1998). Many of the criticisms of the normalisation thesis have focused on prevalence rates. However, the concept of normalisation was used to refer to the growth in availability, experimentation, and acceptability, not just the *use* of illicit drugs by young people (Parker et al. 1998). Parker et al. (1998) actually described normalisation as involving the spread of deviant activity and associated attitudes towards the centre of youth culture where many other accommodated 'deviant' activities (for example regular cigarette smoking, excessive drinking and casual sex) also take place. They seem to be arguing that drugs are normalised in the sense that they are accommodated, yet remain 'deviant'. Measham (2004) has argued that normalisation refers to the cultural accommodation, acceptance or recognition of a minority behaviour within society, not simply that drug use is normal.

SECTION 4: AIMS

The central objectives of this thesis are to explain drug use and offending and to describe and understand how the two behaviours are related over the teenage years for this Edinburgh based cohort of young people. This research aims to:

- a) compare patterns of drug use and offending between the ages of twelve and seventeen years;
- b) ascertain whether the strength of the relationship between the two changes over the teenage years;
- c) investigate whether drug use and offending can be explained by a similar or distinct set of factors and whether this is different earlier and later in the teenage years;
- d) see whether drug use and offending have an impact on later involvement in the other behaviour having taken account of explanatory variables;
- e) build on these explanations of drug use, offending and the relationship between the two, by exploring the symbolic meanings young people attach to these behaviours.

SECTION 5: METHODS

This research focuses on developmental (rather than shorter-term or immediate) relationships. Longitudinal research is necessary to unravel the complexities of the linkages. The Edinburgh Study is a large, single-cohort longitudinal study involving around 4,300 young people who started secondary school within the City of Edinburgh in August 1998. The study aims to: explore pathways into and out of offending for males and females; develop new theories explaining offending behaviour; and contribute to practical policies targeting young people. The Edinburgh Study uses a variety of methods: annual self-report questionnaires; semi-structured interviews; school, social work and children's hearings records; teacher questionnaires; police juvenile liaison officer and Scottish

criminal records; parent survey; and geographic information system. For the purposes of this doctoral research I carried out secondary analysis of annual self-report questionnaire data for the cohort, from age 12 to age 17. Methods are described in more detail in chapter three. Descriptive statistics and multivariate regression analyses are used to look at the relationship. I also conducted in-depth interviews with 27 of the cohort members when they were 18 to 19 years old. The qualitative findings added depth to explanations and enabled the further interpretation of quantitative results.

SECTION 6: STATEMENT OF THESIS

Both drug use and offending can be explained by reference to low levels of informal social control and peer group factors. Socio-structural position has an impact on social bonds. Depending on the degree to which young people are supervised by parents and have good relationships with parents and teachers, they will be engaged in different routine activities (main and leisure activities) and have a different balance of legitimate and deviant opportunities open to them. Those who experience lower levels of informal social control will be more 'available' to spend time in deviant peer group contexts and more likely to engage in deviant activities themselves. It is within the context of peer group interactions that the social acceptability of behaviours may be defined, drug use and offending opportunities occur and decisions are made.

Young people may experience lower levels of informal social control at different points in the teenage years, which helps explain why the age of onset of drug use varies. It is unusual for young people to be weakly bonded to family and school early on in the teenage years. Those who are subject to less social control are 'freer' to engage in deviant behaviours yet they are more limited in terms of the conventional opportunities open to them. Early onset drug users described how they engaged in drug use and offending in street-based peer groups, sometimes gangs because they felt they had 'nothing to do'. Mid-teen onset drug users engaged in deviant peer group contexts, which they sometimes describe as being the 'wrong

crowd'. In contrast, later onset drug users tended to portray themselves as autonomous agents making choices to experiment with and enjoy drugs in legitimate leisure contexts. The social meaning of drug use changed over the teenage years.

The relationship between drug use and offending is stronger earlier (as opposed to later) in the teenage years. Earlier drug use is more deviant and is explained in a similar way to offending, whereas later onset drug use represents something different. Earlier offending helps explain mid-teen drug use, whereas mid-teen drug use has an impact on later offending. Involvement in offending based peer groups may facilitate engagement in drug use. Involvement in deviant activities may weaken social bonds and deepen involvement in deviant contexts, leading to further deviant activity. However, 'turning points' such as starting one's own family, gaining employment or changing friendship group facilitate the reduction of involvement in offending and drug use. Broadly speaking findings suggest that policies aiming to reduce drug use earlier on in the teenage years could be similar to those used to deal with offending, but later drug use should be understood differently and dealt with separately to offending.

SECTION 7: STRUCTURE OF THESIS

To conclude this chapter I will give a brief outline of the layout of the remainder of the thesis. Chapter two provides a review of the relevant literature on the topic. Various potential substantive explanations for the relationship are critically evaluated. These are divided into the following approaches: 1) pharmacological; 2) psychological; and 3) sociological explanations. Research methods are described in chapter three. Details are given of the Edinburgh Study, secondary analysis of annual self-report data and the in-depth interview process. Finally there is a discussion of the strengths and limitations of the research methods.

Descriptive statistics on patterns of prevalence and age of onset of drug use and offending and the strength of the relationship between them over the teenage years are presented in chapter four. Chapter five begins to look at the relationship between explanatory factors and drug use and offending. Multivariate analyses are

used in chapter six to explain self-reported drug use and self-reported offending. Ordinal regression models are compared in order to see: whether drug use and offending are explained by similar factors earlier and later in the teenage years; and whether in the context of other factors, drug use and offending are important in explaining involvement in the other behaviour two years later, at different points in the teenage years.

Findings from in-depth interviews on the lived experiences of young people in different subgroups (based on the age at which they first started using drugs other than cannabis) are presented in chapters seven and eight. Early onset and mid-teen onset drug users are discussed in chapter seven and the experiences of later onset drug users and those who had only ever used cannabis are presented in chapter eight. In the final concluding chapter the progress made in achieving the research aims is examined. Key findings are summarised, threads of the argument are drawn together and policy implications are discussed. The limitations of the thesis are acknowledged and suggestions for further research possibilities are made.

CHAPTER 2: A REVIEW OF THE LITERATURE

INTRODUCTION

Context and aims

As Walters (1994) recognised, ‘the presence of an association between drugs and crime would seem self-evident; explaining this relationship, however, is somewhat more problematic’ (Walters 1994: 3). The central focus of this literature review is on explanations for drug use and offending. A vast amount of literature on drugs and crime exists. This review focuses on that which sheds light on the linkages between drug use and offending over the teenage years. Much literature and research covers the relationship between drugs and crime in general. Although it has been argued that the relationship should be examined for each type of crime and each type of drug (McBride and McCoy 1982) it is also important to recognise that in reality substances are often used in combination with one another. This chapter provides an opportunity to identify gaps in the literature and provide a context for the remainder of the thesis.

Outline

Undoubtedly, ‘the association between drug use and illegal activity during adolescence is complex’ (White et al. 2002: 131). As will be demonstrated, findings regarding the relationship are contradictory and there are major gaps in the literature. I began by reviewing literature on the relationship between drug use and offending, with a particular focus on longitudinal research with young people. Findings were contradictory and bewildering and did not offer enough by way of a substantive explanation for the relationship. As a result I broadened my search to include literature from a variety of disciplines, which explained one or other or both of the behaviours.

The large body of literature and research on drug use and offending stems from a variety of disciplines, for example: criminology; sociology; law; psychology;

pharmacology; psychiatry; medicine and epidemiology. These disciplines have spurred various different theories and explanations, which could be adapted to the exploration of the drug use-offending relationship. Some of the approaches within these disciplines, which attempted to explain one of these behaviours (drug use or offending), have since been employed in explaining both. For example, the 'risk factor' approach, which has been adapted from the public health arena, has been used in the explanation of both drug use and offending (Rhodes et al. 2003, Shader 2003).

This chapter centres on explanations for drug use, offending and the relationship between the two. Substantive explanations form the basis of the main sections of this chapter: pharmacological explanations (section one); personal characteristics, predominantly psychological explanations focusing on the individual (section two); and sociological or psychosocial explanations looking at micro-environmental and macro-environmental factors (section three). The fourth section briefly discusses six competing models which may be used to describe the relationship. Finally, findings are summarised and some conclusions are drawn.

SECTION 1: PHARMACOLOGICAL EXPLANATIONS

Pharmacology is the study of drugs and the effects they may have on behaviour. According to this perspective it is important to look at the pharmacological qualities of each substance, as their effects differ dramatically. Various explanations of the drug use-offending relationship see the effect of the substance on behaviour as the key element in the explanation. An example of such an explanation would be the popularly held conception that 'alcohol makes people violent'. There is a large amount of research which links drug or alcohol use to aggressive or violent behaviour. Experimental research has been done into the direct effects of substances on behaviour. However, this research is limited in what it can say about the relationship between drug use and offending in real world situations. Although effects on the physical and mental functioning of drug takers may be longer term, research into these pharmacological explanations tends to look at the short-term or immediate relationship between drug use and offending.

Biological and physiological

Biology and physiology seek to identify unique physiological, endocrine, glandular, or neural mechanisms that are activated by substances to induce aggressive responses. It has been suggested that alcohol may alter epinephrine or norepinephrine secretion leading to stress and aggressive behaviour. Other possible physiological explanations of the alcohol violence relationship are that: alcohol may decrease frontal lobe functioning, affecting the ability to handle new or threatening situations; or may affect neurochemical systems that mediate aggressive behaviour. Fagan (1990) recognised the limitations of laboratory experiments. One drawback is that, although research has looked at the effects of electrical and chemical stimulation on brain pathways in the production of aggressive behaviours, there is 'little experimental evidence that employs alcohol or psychoactive drugs as stimuli' (Fagan 1990: 250). Fagan concluded that:

'There is little evidence that intoxicants either decrease or increase aggression by their actions as stimuli of the different neural systems and brain pathways of aggressive behaviour' (Fagan 1990: 250).

Comparative research among species actually found that substances that induce changes in behaviour may result in aggression by a drug-free attacker towards the drugged animal, which suggests the possibility of a social aetiology of aggression (Fagan 1990: 251). Fagan also recognised that the inability in experimental studies to disentangle psychosocial factors makes it impossible to conclude that alcohol-induced changes in endocrine states can increase aggression. Explanations which focus solely on the biological and physiological effects of substances have limited explanatory power. As will be shown later in this chapter, other research has highlighted the importance of looking at factors in the wider environment in order to understand the relationship between drug use and offending.

Psychopharmacological

Psychopharmacological research looks at the way in which the chemical properties of drugs interact with the human organism to produce specific behavioural outcomes. The psychopharmacological explanation suggests that, following ingestion of intoxicants, individuals may exhibit aggressive behaviours that result from effects

of intoxicants on personality and emotional states. For example, the use of substances may cause excitability, irritability, and paranoia, all of which may result in violent behaviour. It is suggested that substances may encourage violent criminal behaviour by having a direct effect on a person's judgement, mood, self-control, or ability to inhibit violent impulses (NACRO 2000, Walters 1994). Drugs may make people less concerned with the consequences of their actions (Brook et al. 1996). Much of the literature focuses on the supposed 'disinhibiting effect' of substances (Hough et al. 2001). It has also been suggested that long-term ingestion of high doses of substances may induce psychological pathologies that are activated by alcohol.

Boles and Miotto (2003) reviewed the literature on the potential relationship between different substances and violence and reported the following. Alcohol was most frequently cited as being related to aggressive and violent behaviour through disinhibition. However, alcohol operates in environmental, social, situational and cultural contexts that influence the potential for violent outcomes. Marijuana and opiate use were seen to depress activity and suppress hostility and aggression. Amphetamines are mood-altering, and chronic use may induce a psychotic paranoid state which may result in aggressive acts. Cocaine is also mood-altering and large doses may cause irritability and violent outbursts. 'The psychopharmacodynamics of stimulants, such as amphetamines and cocaine, also suggest that these substances could play a contributing role in violent behaviour' (Boles and Miotto 2003:155). However, Fagan (1990) concluded that there was little experimental evidence of aggression resulting from either short or long-term amphetamine use. Fagan found that there was empirical evidence of a psychopharmacological basis for aggression following intoxication only for alcohol and cocaine. Bennett and Holloway (2005b) suggested there may be potential interactive or additive effects of drug mixing on judgement or behaviour.

White and Hansel (1998) found that rates for fighting while using drugs (i.e. acute effects) were highest for alcohol, then cocaine, and lowest for marijuana. They concluded that their findings were consistent with the psychopharmacological model. However, Menard and Mihalic's (2001) results suggested that, although a strong case could be made for the psychopharmacological effects of alcohol on violence, vandalism, and public disorder, there was little to support the theory that

psychopharmacological effects were broadly implicated in most other illegal behaviour, in either adolescence and adulthood. According to White and Gorman (2000), the psychopharmacological model has received little support in the adolescent research literature. Findings relating to psychopharmacological explanations appear to be inconclusive.

Boles and Miotto (2003) found that most real-world studies indicated that the relationship is exceedingly complex and moderated by a host of factors in the individual and the environment. Psychopharmacological explanations of intoxication need to take a range of other factors into account. 'It is not the alcohol per se that is the problem but factors external to the alcohol' (Bean 2002: 23). For example, the importance of situational factors (Wagner 1996), the social environment (MacCoun et al. 2003), social expectations (Young 1971) and cultural context (McDonald 1994) have been emphasised. Moreover, Wiklund and Lidberg (1990) concluded that alcohol as a causal criminogenic factor requires an additional causal variable in the form of situational factors such as 'frustration' or provocation, disappointment, misunderstanding, or threat etc. Similarly, Hore (1990) found that the effect of alcohol on criminal behaviour may be conditional (e.g. only when argument erupts). Therefore, although psychopharmacological effects may be important, explanations must also take account of other factors within the individual and the environment.

Withdrawal and dependence

Although opioids are not associated with violence during intoxication, withdrawal from long-term opiate use is found to be associated with irritability, hostility, and other emotional symptoms (Boles and Miotto 2003). There is also evidence of a sudden depression following use of crack-cocaine, leading to anxiety and severe depression. However, it is unlikely that a pharmacological response to withdrawal symptoms can adequately explain offending.

A popular explanation for the relationship between drug use and offending is the 'economic compulsive' model. It is suggested that the high cost of some illegal drugs gives rise to income generating crime by those who are dependent on such substances (Walters 1994, Wish and Johnson 1986, Gordon 1990). The pharmacological form of this explanation implies that drug users are somehow

compelled to commit crimes in order to feed their habit. The substance is seen to be physically addictive, with users being dependent on it. Hammersley et al. (1989) argued that for the 'addiction causes crime' explanation to make sense, 'addiction' must be some kind of pharmacologically-caused state which cannot be controlled by the user, who is then compelled to commit crimes in order to purchase drugs. Hammersley et al. (1989) concluded that there was not a simple causal relationship of pharmacology causing crime, but that additionally, income from crime may lead to increased expenditure on drugs. However, if heroin users often steal to obtain money to buy heroin then their drug use is important in explaining their stealing; though the explanation may not be pharmacological in nature. Furthermore, research with male methadone maintenance patients found that:

'Narcotics addiction usually does not cause property crime as an initiator but rather as a multiplier of existing criminologic predispositions' (Anglin and Speckart 1988: 226).

Hammersley et al.'s (2003) research with young adult offenders found that forty percent of the cohort felt there was some relationship between their substance use and their offending. Also, Bennett's (2000) NEW-ADAM research found that 42% of drug using arrestees felt that their drug use and crime were connected, and of those, 70% felt they were connected because they needed money to buy drugs. Moreover, Jarvis and Parker (1989) found that of those heroin users who reported daily offending, 74% said it was motivated by the need to raise money for drugs. However, it must be recognised that those interviewed were prison inmates and drug dependency patients and therefore can not be seen to be representative of all opiate users. Figures from both Hammersley et al.'s (2003) research with young adult offenders and Bennett's (2000) research with arrestees leave a substantial percentage (almost 60%) of respondents who did not say they felt there was a relationship between their drug use and offending. Also, it should be recognised that the 'economic compulsive' explanation of drug use is likely to involve societal beliefs and assumptions and therefore is more complex than a straightforward effect of substance dependence on offending. For example, MacCoun et al. (2003) suggested that this explanation may be a convenient rationalisation or excuse for antisocial behaviour.

White and Gorman (2000) concluded that the economic motivation

explanation has not been supported among adolescents. In addition, Parker et al. (1998), Glassner and Loughlin (1987), and Carpenter et al. (1988) found that most young people funded drug use through legitimate means. Similarly, Menard and Mihiliac (2001) found that in the nationally representative sample, economic compulsive crime represented the exception rather than the rule among both adolescent and adult illicit drug users. The economic motivation explanation is not supported among adolescents. However, for specific subsets of drug users, particularly street-based dependent drug users, this explanation may have a greater role to play.

SECTION 2: PSYCHOLOGICAL EXPLANATIONS

Personal characteristics are seen to be significant in explaining both drug use and offending. Some explanations of the drug use–offending relationship see the two behaviours being associated as a result of common characteristics within the individual. The implication is that involvement in drug use and involvement in offending are the result of the same ‘risk factors’ that make people susceptible to both. MacCoun et al. (2003) described this explanation as being dispositional in nature. Demographic factors, genetic, behavioural characteristics and personality traits will be covered in this section.

Demographic

Ethnicity, age and gender are briefly discussed here. Studies which aim to investigate the causal effects of drug use and offending often include certain individual characteristics as control variables. Substance use may vary by ethnic group (Silbereisen et al. 1995, Rodham et al. 2005). Among a representative sample of 15 and 16 year olds in the UK there were gender and ethnic differences in self-reported substance use¹ (Rodham et al. 2005). Indeed White et al. (2002) recognised

¹ Rodham et al. (2005) found that Asian, Black and other boys and Black and Asian girls were less likely to report drinking during a typical week compared to White participants. However, Black males were more likely than White males to have used cannabis, opiates and other drugs. Asian females

that factors they did not examine, such as ethnicity, should have been included as potential moderators in the association between drug use and offending. For New York State students, Barnes et al. (2002) found that if they began drinking at an early age American Indians had an added risk over other groups of being delinquent. Looking at the reverse relationship, Apospori et al. (1995) found that, although prior minor deviance did not have a differential impact on drug use among three ethnic groups, prior major deviance did. 'Prior deviance had the strongest impact on later drug use among white students and the second strongest impact among Hispanic students' (Apospori et al. 1995: 220-221). Prior major deviance was not a significant predictor of drug use for black adolescents, but peer factors did condition the relationship. However, Welte et al. (2001) found that ethnicity had a significant effect on drinking in both early and late onset delinquency groups, with white males drinking more.

Another important individual variation is with age. Prevalence, frequency and quantity of drug use and offending clearly vary across the life span. Delinquency tends to peak during adolescence and decline thereafter, whereas substance use continues to increase through adolescence and declines during the twenties (for further details see section four of this chapter). Findings from the North West Longitudinal Study showed that lifetime prevalence of drug trying for the cohort rose from 36% at age 14 to 63% at age 18 and again to 76% at age 22 (Parker et al. 2002). Past year prevalence of drug use for the cohort peaked at age twenty (Parker et al. 2002). Welte et al. (2001) found that age significantly and positively influenced drinking and drug involvement. They found significant relationships between substance use and offending for late-onset delinquency males, but not for early-onset delinquency males. However, the importance of background variables was illustrated by the fact that:

'No significant paths were found between drinking/drug use and any of the delinquency types for both cross-lagged and synchronous models when the effects of background control variables were held constant' (Welte 2001: 426).

However, Barnes et al. (2002) found the relationship between alcohol measures and

were more likely than White females to have used opiates, but significantly less likely to have used cannabis. Asian males were more likely than White males to have used ecstasy.

both delinquency and illicit drug use were stronger for younger adolescents than older adolescents. Much research has found that early (compared to later) onset is related to more serious and extensive delinquent and drug-using careers (du Rant et al. 1999, Pudney 2003).

The relationship between alcohol use and violent behaviour may even be modified by gender (Boles and Miotto 2003). For example, Barnes et al. (2002) found that the relationship between binge drinking and delinquency was stronger for males than females. Similarly, White and Gorman (2000) stated that

‘young males account for a disproportionate share of crime and are also the heaviest drinkers and drug users; being male is the common link (whether due to biological or social factors)’ (White and Gorman 2000: 175).

By contrast, Elliott et al. (1989) found that gender was only weakly or not at all related to the prevalence of alcohol, marijuana, and poly-drug use (including problem use). They found that being male increased the risk of offending, but not of substance use (Elliott et al. 1989). Earlier studies had found that males used a wider range of substances than females but for the last two or more decades the trend has been towards a convergence of female and male rates (Silbereisen et al. 1995). Indeed McVie and Bradshaw (2005) found girls were more likely than boys to smoke cigarettes from age 13 and drink alcohol from age 14, and equally likely to take drugs from age 14. However, as Measham (2002) has argued, beyond prevalence, patterns of drug consumption (frequency and quantity of use) remain gendered.

Unfortunately much research, which has looked directly at the relationship between drug use and offending over the teenage years, has focused solely on males (Anglin and Speckart 1988, Collison 1996, Johnston et al. 1978, Otero-Lopez et al. 1994, Welte et al. 2001, White et al. 1993, White et al. 2002). Some studies (Barnes et al. 2002, Kandel et al. 1986, Mason and Windle 2002, Newcomb and McGee 1989, White and Hansell 1996, Windle 1990), which have looked at the drug use-offending relationship in both males and females, have found gender differences in the relationship. However, these longitudinal studies have come up with contradictory and confusing findings regarding the direction of the causal relationship for both genders. Using data from the National Longitudinal Youth Survey, Windle (1990) found that male gender, non-Black ethnicity and adolescent general delinquency age 14-15 helped explain alcohol and drug use at age 18-19.

White and Hansell's (1996) findings suggested 'that the nature and direction of the relationship between alcohol use, aggression and alcohol-related aggression over time are conditioned by gender' (White and Hansell 1996: 450). They found that alcohol-related aggression was amongst males predicted by prior aggression, but was better predicted by prior alcohol use for females (White and Hansell 1996: 450). Similarly, Kandel et al. (1986) found that among men illicit drug use (age 15-16) did not predict later delinquency (age 24-25), whereas among women illicit drug use did predict interpersonal aggression in young adulthood. Conversely, although Newcomb and McGee (1989) found few major gender differences, they did find one small effect of deviance predicting a later increase in alcohol use for girls. By contrast Mason and Windle (2002) found that results for boys were suggestive of a reciprocal relationship, whereas the findings for girls suggested there were common causes underlying both substance use and delinquency. They suggested this may be explained by the broader process of gender socialisation (Mason and Windle 2002). In summary, there is no clear conclusion regarding the role of gender in understanding the relationship between drug use and offending over the teenage years. There is a gap in the literature as many of the studies have focused only on males.

Genetics

Eysenck (1987) hypothesised that personality (which he saw as hereditary) played some part in predisposing some people to act in an anti-social manner. It has been suggested that 'a variety of adolescent problem behaviours may share a common underlying genetic risk' (Young et al. 2000: 684). Longitudinal research on the relationship between drug use and offending over the teenage years does not generally examine genetic factors. Research on genetic influences on substance use and offending has been conducted in the form of twin studies, adoption studies, family studies and laboratory experiments. For example, Blumensohn et al.'s (2005) research with adolescents who had committed violent crimes concluded that their results supported a role for serotonin receptors in human aggressive behaviour (Blumensohn et al. 2005: 354). Moffitt and Henry (1989) found that deficits in 'executive' neuropsychological functions were shown only by a subgroup of

delinquent subjects with child co-morbidity of antisocial behaviour and attention deficit disorder. However, twin studies found that both genetic and environmental influences had a role to play in explaining drug abuse (Tsuang et al. 1998, van den Bree et al. 1998).

Moffitt (1993) suggested that 'life-course persistent antisocial behaviour' was the result of an interaction between a neuropsychological condition and an individual's environment. Neuropsychological deficits were seen to burden children with high activity levels, irritability, poor self-control and low cognitive ability. In disadvantaged homes, schools and neighbourhoods, responses are more likely to exacerbate than amend. Parents tend to use disciplinary methods that intensify the child's initial problem behaviour and foster weak parent-child bonds. Life-course limited persistent antisocial behaviour was manifested in different ways (including drug use as well as offending) across the life-course. Moffitt considered drug use to be a 'snare', resulting in the continuation of life-course offending, but saw drug use as a statement of personal independence for adolescent-limited offenders. Jones (2005) reviewed the literature and research on genetic and environmental influences on behaviour and concluded that a genetic predisposition to criminal behaviour does not determine an individual's actions, but exposure to the environment increases their chances of engaging in criminal behaviour. Contemporary genetic research sees behaviour as being the result of an interaction between gene and environment, thereby acknowledging the need to take environmental influences into account.

Behavioural characteristics

Boles and Miotto (2003) pointed out that people are unlikely to behave aggressively when under the influence of drugs or alcohol if they do not also exhibit such behaviour when not under the influence. Behavioural or conduct problems in childhood have been found to be a risk factor for: the later development of persistent antisocial traits (Moffitt 1993, Farrington 1995); substance use and abuse (Silbereisen et al. 1995, Lynskey and Fergusson 1994); and both drug use and offending (Beinart et al. 2002, Farrington 1995, NACRO 2000, Newburn and Shiner 2001). Early aggressive and anti-social behaviour was found to be predictive of later alcohol-related problems (Farrington 1995, White et al. 1993, White and Hansell

1996, White and Hansell 1998).

Welte et al. (2001) stated that their finding that causal effects of substance use on offending and vice versa were only found among late-onset delinquents, not among early-onset delinquents, suggested that the correlations among these behaviours are attributable to the influence of a latent antisocial personality trait that was established in early childhood. However, although Robins and Ratcliff (1978) found that seriously antisocial behaviour in adults rarely occurs in the absence of a high level of childhood antisocial behaviour, they also pointed out that even very antisocial children become very antisocial adults in only about half the cases. The potential for change in behaviour must be recognised, rather than continuity in behaviour or the existence of behavioural characteristics being assumed.

Personality traits

Personality theories have identified deficits in personality development, leading to both aggression and substance use (problem behaviours). White et al. (1987) examined an assortment of personal characteristics drawn from relevant psychological literature (self esteem, distress, impulsivity, hostility and disinhibition). They found that many of these intrapsychic variables were related to substance use (especially alcohol use) and not delinquency, and concluded that serious delinquents share only a few personality characteristics in common with serious substance users.

Personality traits such as sensation seeking, risk taking, impulsivity and low self-control are hypothesised to be linked to both substance use and offending. Zuckerman's (1979) 'sensation seeking' explanation proposes that many behaviours (such as alcohol and drug use and involvement in delinquency) have a common feature which make them particularly attractive to individuals who score highly on a measure known as the sensation-seeking scale. White et al.'s (2002) research on the proximal effects of alcohol and drug use found that 'individual differences in impulsivity appear to be involved in the complex association between alcohol use and aggressive offending' (White et al. 2002: 147). They examined the moderating effects of impulsivity and deviant peers on committing offences under the influence and found that impulsivity was related to offences against persons but not to theft

(White et al. 2002: 144). Moreover, Otero-Lopez et al. (1994) explored the influence of family, peer and personality variables on the drug use-offending relationship and found that after peer delinquency the best predictor of delinquent behaviour was sensation seeking.

In contrast, Newcomb and McGee (1989) concluded that the association between alcohol use and criminal behaviour was not due to a general proneness toward sensation seeking. They found that alcohol use had an impact on delinquency, but they had not included any other potential common causes apart from sensation seeking. Moreover Martin and Robbins (1995) looked at personality, social bonding and social learning risk factors for delinquency. They concluded that

‘the importance of sensation seeking as a predictor of drug use may come more from its interaction with such sociological influences as social networks, social attachments, and situational factors than from its direct additive impact’ (Martin and Robbins 1995: 157).

Also, studies comparing deviant or drug using groups with non-involved young people have found similarities in personality correlates such as sensation seeking, anxiety, depressive mood (Barnea et al. 1993 and 6 et al. 1997). Indeed Oetting et al. (1998) proposed that:

‘the individual’s personal characteristics and personality traits do not directly relate to drug use and deviance, but, in nearly all cases, influence those outcomes only when they affect the interactions between the individual and the primary socialisation sources’ (Oetting et al. 1998: 1337) (the family, the school and peer clusters).

Gottfredson and Hirschi’s (1990) self-control theory is a theory of stable individual difference. They conceived of control as a permanent internal state, which would influence virtually every aspect of a person’s life across the life course. Ribeaud and Eisner (2006) explored the extent to which self-control could account for the correlation between substance use and delinquency. Results indicated that self-control is a strong and stable predictor of both overall delinquency and overall substance use (Ribeaud and Eisner 2006: 1477). However, allowing for the effect of self-control did not reduce the correlation between substance use and delinquency as much as hypothesised by the General Theory, a considerable residual correlation remained. Ribeaud and Eisner (2006) concluded that factors exogenous to the general theory were responsible for the relationship, and that self-control may be

considerably less stable over the life course than initially assumed by Gottfredson and Hirschi (1990). Research which has tested the 'general theory of crime' in relation to drug use has not been supportive of the idea that self-control is stable over time (Boeri et al. 2006). Similarly Burt et al. (2006) found that 'self-control only partially attenuates the negative effect of parental efficacy on delinquency' (Burt et al. 2006: 353). Contrary to Gottfredson and Hirschi's (1990) proposition, they found substantial instability in self-control across two waves and found that the social relationships they incorporated (improvements in parenting, attachment to teachers, association with pro-social peers, and association with deviant peers) explained a substantial portion of changes in self-control (Burt et al. 2006). Glassner and Loughlin (1987) criticised personality testing for assuming that a persons' patterns of response are unchanging, when it is well know that decisions are taken in light of situational conditions.

Risk taking is also presented in a different manner. Drug use and offending may both be seen as being forms of hedonistic risk taking (Hough et al. 2001). Hough et al. (2001) acknowledged the role of the search for novelty and excitement, and the enjoyment of the rewards of risk taking, as defining aspects of youth culture. The authors saw the fact that large minorities of the population engage in relatively controlled risks (of both recreational drug use and minor crime) at some stage in their adolescence and young adulthood as being unsurprising (Hough et al. 2001). Similarly both Collison (1996) and Parker et al. (1998) saw risk taking as a common part of adolescent life, a regular, almost routine activity.

In summary: involvement in drug use and offending may vary by demographic factors. Age is important in understanding the relationship between the two behaviours. Some studies have found that gender is differently related to drug use and offending, but much of the research on the relationship does not include females. Contemporary genetic research acknowledges the need to take environmental influences into account. The potential for change (as well as continuity) in behaviour must be recognised when looking at the importance of behavioural characteristics. Similarly, personality traits such as self-control are not stable over the life-course and sociological influences should be taken into account.

SECTION 3: SOCIOLOGICAL EXPLANATIONS

Many of the above explanations, which have focused on either the effects of substances on behaviour, or the importance of personal characteristics, have been found to lack an understanding of the central importance of the wider environment in the drug use-offending relationship. As Fagan (1990) pointed out, the above explanations (pharmacological and psychological) cannot explain cross-cultural or sub-cultural variation. Sociological explanations are important when looking at both the shorter and longer-term relationships between drug use and offending. This section will look at the role of explanations relating to: socio-structural position; family and school; peers; lifestyle; social meanings and contexts; and broader societal influences.

Socio-structural position

Socio-structural variables, including socio-economic status and neighbourhood of residence, relate to the person's location in the structure of social roles and statuses. Pudney's (2003) findings from the Youth Lifestyle Survey (YSL) indicated that disadvantaged social or family background was the dominant influence on drug use and offending. Similarly, Greenwood (1992) found that adolescents from impoverished urban communities were at high risk for involvement in drug use, drug sales and serious delinquency. These young people often had behavioural problems at school, associated with delinquent peers and had inadequate supervision at home (Greenwood 1992). Thornberry (1987) criticised theories which ignore the impact of socio-structural position and stated that the relationship of structural variables to bonding variables sets the stage on which reciprocal effects develop across the life cycle. Sampson and Laub (1993) also recognised that individuals, families and social control processes were embedded in social structural contexts. They found that family process mediated much of the effect of structural background on delinquency.

Elliott et al. (1989) found that the prevalence of more serious types of delinquency appeared to be higher for the lower class than the middle class, but the relationship between social class and delinquency was otherwise inconsistent or non-

significant. However, the prevalence of substance use was higher among middle class than lower class, but this finding reflected the experience of those who had moved beyond adolescence (Elliot et al. 1989). In contrast, Welte et al. (2001) found that, for early-onset delinquency males, social class did not make any difference, whilst for late-onset delinquency males, higher socio-economic status members exhibited less drinking, drug use and delinquency. Both of these findings (Elliott et al. 1989 and Welte et al. 2001) were from U.S. based studies. Conversely, Measham et al. (2001) found the clubbers in their (UK based) research were largely well educated, from all social backgrounds, but especially professional groups and the vast majority were in legitimate gainful employment. However, Shildrick (2002) recognised that although being middle class no longer prevented young people from taking illicit drugs, the picture was more complex beyond concern with prevalence of drug use. The most disadvantaged young people were most likely to use a wider range of drugs on a more regular basis and experience more 'problematic' incidents. For these young people living in a disadvantaged area and spending time on the streets also meant they were more likely to come into contact with drug use at an earlier age.

Various neighbourhood factors: community disorganisation and neglect; disadvantaged neighbourhood; high turnover; dense population; lack of neighbourhood attachment; availability of drugs; and high crime rates have been listed as risk-factors for drug use and offending (Beinart et al. 2002, White and Gorman 2000). Seddon (2005) emphasised the importance of looking at the social context of drug-related crime. In the 1980's heroin became strongly connected with social disadvantage and neighbourhoods experienced clustering of social difficulties, which led to further social exclusion. However, Brook et al. (1989) found that neighbourhood effects on adolescent drug use were mediated through the domains of school. Furthermore, McVie and Norris (2006) found that: delinquency was partially explained by greater neighbourhood deprivation (as measured by factors such as high unemployment rate and dense local authority housing); 'hard' drug use was partially explained by higher crime rates; yet more frequent cannabis use was greater within prosperous neighbourhoods but also within areas in which there was greater social disorganisation. In conclusion, although drug use is prevalent in all segments of

society, it must be recognised that associated problems often affect socio-economic groups differently. Also, socio-structural factors have an impact on social bonds.

Family and school

Various different factors relating to the family have been put forward as explanations of both drug use and offending by young people. These factors relate to: parents involvement in or attitudes towards drug use and offending (NACRO 2000, Beinart. et al. 2002); violent family environments (Boles and Miotto 2003, Fagan 1990); parent-child conflict and inconsistent harsh discipline (Beinart et al. 2002, Boles and Miotto 2003, NACRO 2000, Rhodes et al. 2003, Smith 2004a); and lack of parental monitoring and communication (Beinart et al. 2002, Boles and Miotto 2003, Levine and Kozak 1979, NACRO 2000, Smith 2004a). In explaining drug use and offending in adolescence much research has found parental monitoring to be important (Bahr et al. 2005, Dielman et al. 1990-1991, Dishion and Loeber 1985, Huizinga et al. 1994, Nash et al. 2005, Reifman et al. 1998, Richardson et al. 1993, Richards et al. 2004, Smith 2004a, Steinberg et al. 1994, Svensson 2003, Wright and Fitzpatrick 2004). Although it has been suggested that family structure (not living with two birth parents) may also be a factor, according to Barrett and Turner (2006) family structure may be viewed 'as a marker of the unequal distribution of factors influencing the risk of problematic substance use' (Barrett and Turner 2006: 109).

Young people are subject to different levels of informal social control over the teenage years (Sampson and Laub 1993). Thornberry's interactional theory of delinquency views delinquency as:

'resulting from the freedom afforded by the weakening of the person's bonds to conventional society, and from an interactional setting in which delinquent behaviour is learned and reinforced.' (Thornberry 1987: 863).

Thornberry used three elements from Hirschi's (1969) version of social control theory: attachment to parents; commitment to school; and belief in conventional values. Also, Sokol-Katz et al. (1997) found a significant direct relationship between family attachment and major and minor delinquency, and alcohol, cigarette, and drug use. Moreover, Ford (2005) found that family bonding, but not school bonding, was a significant predictor of delinquency and drug use. According to Thornberry (1987), in middle adolescence the family declines in relative importance, while the

adolescent's own world of school and peers takes on increasing significance.

Sampson and Laub (1993) found that family process variables were strongly and directly related to delinquency and concluded that among dimensions of informal social control processes, the family and school appeared most important. However, they also found strong peer effects on delinquency and recognised the need to examine the role of peer influences more carefully.

Engagement in deviant activities may further weaken social bonds, which in turn may deepen deviant involvement. (Thornberry 1987, Sampson and Laub 1993). In confirmation of this, Huizinga et al. (1994) found support for a reciprocal relationship between family life and delinquency; both delinquency and drug use affected factors which are typically thought of as their causes. Similarly, Ford (2005) found that substance use and delinquency weakened the social bond, which led to continued substance use and delinquency. However, the inevitability of this 'embedded behavioural trajectory' (Thornberry 1987) has been overstated, with the focus being too strongly on continuity rather than change. As Laub and Sampson (2003) recognised 'turning points' such as starting one's own family, gaining employment and changing friendship group may facilitate the reduction of involvement in offending and or drug use. Indeed Hamil-Luker et al. (2004) found support for Sampson and Laub's age graded theory of informal social control in relation to drug use. They found that regardless of individual differences in offending, cocaine use trajectories were shaped by social attachments to work, family schools and religion (Hamil-Luker et al. 2004).

McVie and Holmes (2005) found that family characteristics and parenting styles played a significant role in the substance using behaviour of young people. Also using data from the Edinburgh Study, Smith's (2004a) findings showed that parental monitoring, consistency, and willingness to negotiate were associated with lower delinquency, whereas parent-child conflict and parental punishment were associated with higher delinquency. Smith emphasised that monitoring is dependent on voluntary disclosure of information by the child so it cannot be externally imposed in authoritarian style. Interestingly, findings from the Denver Youth Survey, Pittsburg Youth Study and Rochester Youth Development Study (Huizinga et al. 1994) showed that poor family attachment (emotional bond between parent and

child) and failure to communicate with and monitor children were related to both drug use and offending, whereas parental conflicts (inconsistency of punishment and avoidance of discipline) were related to delinquency but not drug use. However, Huizinga et al. (1994) found that family factors were weak in comparison to the importance of associating with delinquent peers and being in a gang. Also, Dielman et al. (1990-1991) found that 'parental norms and monitoring are secondary to the peer variables, but still of significance in the prediction of adolescent alcohol use and misuse' (Dielman et al. 199-1991: 855). Furthermore, Bahr et al. (2005) interpreted the finding that parental monitoring and attachment had an indirect and small impact on drug use compared to peer drug use as being more consistent with social learning than social control theory. However, the relative importance of delinquent peers (and social learning theory) may have been overstated, as these measures tend to rely on respondents' reports of their friends' involvement rather than direct self-reports from matched friends.

Various school-related risk factors for drug use and offending including: perceived poor academic achievement and expectations; lack of commitment to school; truancy and exclusion (Beinart et al. 2002, Ellickson et al. 2001, Ljubotina et al. 2004, Richardson et al. 1993, Sutherland and Shepherd 2001, Wright and Fitzpatrick 2004) have been put forward. McAra (2004) found that truants had a significantly higher incidence of illegal drug use, underage drinking and smoking than non-truanting pupils, but it was emphasised that substance misuse was only one part of a complex set of behaviours and adverse circumstances associated with both truancy and exclusion. Also, McCrystal et al. (2006) found that young people aged 14-15 years who had been excluded from and no longer attended mainstream school had already developed a high propensity to drug abuse and antisocial behaviour compared with their peers in mainstream education. However, Krohn et al. (1995) found that once school-related variables were included, the effect of having dropped out of school was not significantly related to subsequent drug use and delinquency. Results suggested problematic behaviours were in part caused by dissatisfaction with school.

Research findings have supported models which combine family and peer factors. Low parental monitoring and associating with substance using peers were

important in explaining drinking (Reifman et al. 1998) and drug use (Steinberg et al. 1994). Simons et al.'s (1991) results supported a model of delinquency which combined elements of social control theory with social learning theory. Indeed White et al. (1987) found that a number of predictor variables drawn from both control theory and differential association theory were related to both subsequent serious substance use and delinquency. There has been evidence of interactions between family and peer factors. For example, Nash et al. (2005) found that family environment (adolescents' perceptions of parental acceptance, parental monitoring and communication with parents) exerted significant indirect effects on adolescent alcohol use through peer influence, self-efficacy, and stress and parental expectations (Nash et al. 2005: 19). Also, Eitle (2005) found that 'level of exposure to substance using peers moderates the relationship between family structure and substance use' (Eitle 2005: 963). Although Sale et al. (2003) found strong relationships between substance use and peer and parental substance use norms, they also saw parental supervision as important and found that family and school connectedness were mediators of own substance use (Sale et al. 2003: 91). Garnier and Stein (2002) found that drug use and delinquent behaviour by peers were the best predictors of teen involvement in these behaviours. Peer involvement was predicted by earlier family related variables and the quality of peer relationships (Garnier and Stein 2002: 45). Indeed Ellickson and Hays (1992) found that weak familial and school attachments fostered drug use by increasing the likelihood of exposure to pro-drug social influence (drug using others). Similarly Svensson (2003) posited that association with deviant peers acts as an intervening (social learning) mechanism between social control variable (parental monitoring) and the outcome variable, drug use. Svensson investigated gender differences and found that teenage girls were more strongly monitored by their parents than males, but when monitoring was weak, teenage girls had a higher risk of becoming involved with deviant peers and, as a result, of engaging in drug use. In summary, family factors were found to have impacted on substance use indirectly, through peer factors. In addition, Brook et al. (1989) found that school effects on adolescent drug use were mediated through the peer domain.

Taken together, findings suggest that the strength of social bonds to family

and school are important in explaining drug use and offending. However, deviant peer group interactions are also important. Depending on the degree to which young people are supervised by parents and have good relationships with parents and teachers, they are likely to be engaged in different routine activities (main and leisure activities). Those who experience lower levels of informal social control will be more 'available' to spend time in deviant peer group contexts. In this way boredom can be understood as being a response to differential opportunity structures. Also, engagement in deviant activities (for example drug use) may weaken social bonds, which may deepen deviant (offending) involvement. Improvements to social bonds are important in explaining reductions in offending or drug use.

Peers

Peer interactions have been recognised as having extremely important influences on both drug use and offending. The peer interaction explanation sees the context or reference group as key. Association with drug using or delinquent peers is perhaps the most frequently cited risk factor for involvement in both drug use and offending (Andrews et al. 2002, Bahr et al. 2005, Beal et al. 2001, Brook et al. 1989, Denscombe 2001, Dielman et al. 1990-1991, Dinges and Oetting 1993, Eitle 2005, Elliott et al. 1985, Fagan 1990, Garnier and Stein 2002, Huizinga et al. 1994, Johnston et al. 1978, Kandel 1985, Krohn et al. 1996, Madarasova et al. 2005, Nash et al. 2005, Newburn and Shiner 2001, Otero-Lopez et al. 1994, Reid 1989, Reifman et al. 1998, Simons et al. 1991, Simons-Morton 2002, Steinberg et al. 1994, Svensson 2003, Thornberry and Krohn 1997, White et al. 2002, White et al. 1985, Yanovitzky 2005). White et al. (1987) found that peer groups generated considerable influence on both serious substance use and delinquency. Indeed, White's (1990) review concluded that peer group influences were the best predictors of delinquency and drug use. Also, Burr's social anthropological research (1987) found that most of the young people's delinquency, including their illicit drug use, took place within the context of peer relations.

Sutherland's (1939) differential association theory sees crime as culturally transmitted, criminal behaviour as learned through social interaction. The theory suggests that deviant behaviour (offending and drug use) is learned through

associations and definitions that either encourage (reinforce) or discourage (punish) behaviour. The implication is that young people who associate with delinquent friends are also likely to engage in similar delinquent behaviour. Akers (1973) social learning theory was an extension of Sutherland's differential social reinforcement. Associations with delinquent peers and the formation of delinquent values are primarily explained using social learning theory. Ford (2005) concluded that a significant peer effect provided support for social learning theory. Critics of social learning theory explanations of the importance of peers have argued that this is a case of self-selection, i.e. 'birds of a feather flocking together'. Indeed, Kandel (1985) found that both selection and socialisation contributed to observed similarity in friendship pairs. In addition, Sieving et al. (2000) concluded that similarity in drinking behaviour among adolescent friends may be more related to processes of peer influence than processes of peer selection.

The weakening of bonds to society increases freedom to engage in delinquent behaviour, but settings that reinforce delinquency are also required (Thornberry 1987). Yanovitzky (2005) hypothesised that

'some or even most of the contribution of sensation seeking to drug use by adolescents is mediated through association with deviant peers and communication with peers that is favourable toward drug use' (Yanovitzky 2005: 67).

Also Mason and Windle (2002) suggested that identification with a delinquent reference group provides a context that is conducive to involvement in a range of problem behaviours including initiation and maintenance of drug use. Indeed Hussong et al. (2004) hypothesised that substance abuse was a snare, inhibiting desistance from offending. One of the explanations they gave was that the social nature of substance use during young adulthood may serve to maintain common activities and ties with deviant peer context.

Rhodes et al.'s (2003) review of risk factors associated with drug use concluded that the evidence emphasised the importance of peer modelling, availability of drugs, and norms governing the social acceptability of drug use. Also Glassner and Loughlin (1987) found that 'drug use arises out of association with peers, not so much as the result of pressures, but rather as part of a social context' (Glassner and Loughlin 1987: 150). Interestingly, peers were described as

legitimizers of the activity and suppliers of the substance, rather than being sources of pressure. Similarly, research on smoking with 15-16 year olds in England raised doubts about the value of the peer group pressure explanation, which was rejected by young people partly because it was at odds with individual autonomy, which they valued (Denscombe 2001: 7). Moreover, McIntosh et al. (2003) found that while peer pressure and a desire for group conformity were involved in a proportion of cases, the dominant factors in initial drug use were personal choice and curiosity (McIntosh et al. 2003: 147).

A huge volume of research has found that reporting having friends who are engaged in delinquency or drug use was an extremely strong predictor of the young people's own behaviour. However, it is perhaps unsurprising that young people are likely to say their friends are engaged in similar behaviours to themselves. Data derived by asking respondents to report on the behaviour of others may be unreliable (Dull 1983). It would be preferable to compare the self-reported behaviour of named friends. In summary, it is within the context of peer group interactions that the social acceptability of behaviours may be defined, drug use and offending opportunities occur and decisions are made. In this way involvement in deviant (for example offending based) peer group contexts may facilitate involvement in other deviant activities (for example drug use).

Lifestyle

It has been suggested that drug use and offending may both be products of lifestyle factors (Chaiken and Chaiken 1990), or expressions of a broader deviant lifestyle (Qualitative European Drug Research Network 1999, Bean 2002). Walters' (1994) lifestyle perspective conceptualises drug use and criminal activity as 'overlapping lifestyles that, although distinct, are bound by a common set of current-contextual conditions, choices, cognitions, and change strategies' (Walters 1994: 94-95). The drug-crime connection is seen to grow as a person's commitment to one or the other of the two lifestyles grows. Sub-cultural norms may reinforce both criminal behaviour and substance use: for example, youth gangs may promote both crime and drug use as proof of masculinity (White and Gorman 2000). Burr's ethnographic research (1987) suggested that delinquency was a vehicle for expressing friendships,

defining hierarchy, power and status and obtaining peer group conformity. The status model sees both behaviours as having positive social pay offs in certain circles. Collison (1996) also saw drug use and offending as linked to status and image, with the aim being to earn a reputation as 'mad'.

McCord (1995) asserted that the type of lifestyles that adult criminals led resulted in their being more prone to alcoholism. It has also been suggested that crime may lead to drug use by providing money and contexts to buy drugs, or for coping with stresses of chaotic criminal lifestyle. Drugs may be used to heighten the excitement factor when committing certain types of offences, or could be taken in order to celebrate offending (NACRO 2000). Indeed Welte et al. found that for late-onset delinquency males 'engaging in minor offences is likely to promote drug use by providing the entrée to a delinquent subculture in which drugs are more accessible and acceptable' (Welte et al. 2001: 435). In addition Hough et al. (2001) suggested that lifestyle and sub-cultural factors are important in explaining why those who try illicit drugs are more likely than others to get involved in other forms of law-breaking. Similarly, in looking at the effects of drug use on aggression, White and Hansell (1998) suggested that

'those individuals who continue to use illicit drugs into adulthood may: become entrenched in a deviant subculture which reinforces aggressive behaviour (social learning theory) or may have become less bonded to conventional societal norms which would normally inhibit aggressive behaviour (social control theory)' (White and Hansell 1998: 853).

Gang membership may be important in explaining drug use and offending. Smith and Bradshaw (2005) found that rates of delinquency and substance use were much higher in gang members than others throughout the years from 13 to 17. Also Esbensen and Huizinga (1993) found individuals' drug use and offending rates were higher during gang membership than before or after. They concluded that it is not solely individual characteristics that are associated with higher levels of involvement in drug use and offending; there may well be factors within the gang milieu that contribute to the criminal behaviour of gang members. Indeed Fagan (1990) saw gang violence as linked to drug use and drug dealing, and suggested that it is factors in the social organisation of gangs and processes of affiliation and cohesion that either encouraged or discouraged these patterns. Bennett and Holloway's (2004)

NEW-ADAM data indicated that gang members in the research (i.e. arrested gang members) tended to be male, criminally active, often involved in robbery and drug supply offences, and had a tendency to carry weapons and guns. However, the results suggested that gang members are probably no more involved in drug misuse than non-gang members from similar backgrounds, and there was some evidence they may have been less involved in drug misuse (especially heroin use and injecting drug use).

Goldstein's (1985) systemic model (discussed more fully in section four) largely fits in with the sub-cultural explanation, as it sees elements of the drug distribution chain as precipitating violence. In this vein Johnson et al. (2000) concluded that the rise and fall of violence in New York City clearly coincided with the succession of drug subcultures in the inner city. Also Menard and Mihalic (2001) found support in their results for the existence of systemic effects of drug dealing on violent offending and victimisation. Although this thesis focuses on the links between alcohol, drug use and offending it is acknowledged that substance use and criminal victimisation may well be associated (McElrath et al. 1997) as are offending and victimisation (Smith 2004b, Anderson et al. 1994).

Parker et. al (1998) suggested that the understanding of sub-cultural drug scenes involving atypical minority populations was no longer as relevant, given the emergence since the 1990's of widespread drug use amongst large numbers of ordinary, conventional young people. They asserted that, with such a 'normalisation' of drug use, pathologising explanations of 'deviance' are no longer of use. They argued that normalisation is about the cultural accommodation of the illicit and hence sits uncomfortably with sub-cultural theory. However, it must still be recognised that all drug use has not suddenly been accepted as appropriate by society at large. Elements of the interactionist, sub-cultural perspective still have explanatory power. Indeed on the basis of their Norwegian research, Pape and Rossow (2004) asserted that the idea of ecstasy users as being ordinary and well adjusted was highly overstated. In summary, the lifestyle explanation suggests that involvement in a deviant context increases the likelihood of becoming involved in other deviant behaviours, through accessibility and sub-cultural norms.

Social meanings and contexts

Explanations which see the psychopharmacological effects of substances on behaviour as the most important element in the drug use-offending relationship, need to acknowledge the conditional nature of the relationship. The importance of the role of the nature of social setting in explaining the relationship between drug use and offending is now well recognised. Certain types of place and situation may generate greater rates of both drug use and crime (White and Gorman 2000). As Boles and Miotto (2003) pointed out, most drinking places are rarely scenes of violence, but there are group drinking situations or settings where violence is expected and socially accepted, such as fighting bars and sporting events. Also Blum (1982) emphasised the importance of situational factors and Pernanen (1982) recognised that sets, cues, expectations, meanings, and general symbolic connotations of alcohol use determine behaviour independently of actual pharmacological effects, and probably interact with these. Similarly Parker (1996) concluded that the linkages between drug use and offending were complex, dynamic relationships, which changed through time and were mediated by setting and circumstance.

Substances carry different social meanings, which are transmitted during social interaction and social learning. Becker's (1963) 'becoming a marijuana user' details certain steps toward being able to use the drug for pleasure. These are: learning the technique; learning to perceive the effects; and learning to enjoy the effects. It has been suggested that behaviour may be seen as communicating the shared values and norms of the culture or social group. It is difficult to disentangle psychopharmacological effects of alcohol from societal expectancies regarding alcohol use and aggression (White et al. 2002). The importance of expectation can be seen from experiments in which individuals who believed they had consumed alcohol showed more aggression irrespective of the actual alcohol content of the drinks administered (Hore 1990). Chomsky (1968) emphasised how what a person does is related to what he knows, believes, and expects. Clearly, different beliefs and expectancies regarding the effects of substances on behaviour exist in different social contexts. Similarly Fagan (1990) found that factors such as threat, learned social responses, and expectancy mediated the intoxication-aggression relationship. Therefore, Fagan rejected the disinhibition hypothesis as a 'form of

psychopharmacological determinism'. Instead Fagan suggested that the effects are learned, and pointed out that intoxication is often used as an excuse for a behaviour that is socially disapproved or controlled in most contexts.

Schmitt and Grupp (1973) saw marijuana as a social object in the Meadian sense, i.e. it has no intrinsic meaning. Individuals act toward marijuana on the basis of the meanings they attribute to it. 'A substance's meaning or reality, its capacity to attract or repel, varies according to the cultural context in which it is placed' (McDonald 1994: 11). Much of the literature has suggested that effects of substances may be culturally mediated (Hough 1996). Greenberg (1982) spoke of a 'cultural embedded-ness' of the link between alcohol and crime. Similarly, Fagan highlighted the cross-cultural and sub-cultural variation in the intoxication-aggression relationship, i.e. alcohol does not lead to aggressive behaviour in all cultures or sub-cultures. For example, Bayley (1991) pointed out that the attitude to drunkenness was very different in Japan compared to the U.S.A., with drunks being 'protected' rather than arrested. As Measham et al. (2001) recognised 'normalisation' is a relative concept, a dynamic process which can be reversed when something, for example smoking, gets redefined as unacceptable.

Glassner and Loughlin's (1987) social worlds approach, which emphasised the importance of understanding particular social phenomena by way of their position within social worlds, was influenced by Blumer's (1969) understanding that people may be living side by side and yet be living in different worlds because the physical and symbolic objects with which they deal are different. Maruna (2001) argued that subjective aspects of human life (emotions, thoughts, motivations and goals) have largely been neglected in the study of crime. The goal of Glassner and Loughlin's (1987) research was to explore the meanings of drugs as reported by adolescents themselves. It is important to take this type of approach, which looks at social meanings and contexts, rather than a purely 'risk factors' based one. There is a distinct lack of qualitative studies which look directly at the relationship between drug use and offending over the teenage years (though Simpson 2003b's North of England based ethnographic research did look at the relationship). It is extremely unusual to find research on this topic which combines quantitative and qualitative approaches (though Carpenter et al.'s 1988 U.S. based research is a notable

exception). As they noted:

‘Although a number of studies have been conducted on the relationship between drugs, alcohol, and crime, few have asked these questions about ‘normal’ adolescents, and from the perspectives of the adolescents themselves.’ (Carpenter et al. 1988: 222).

Broader societal influences

Society-wide influences such as: alterations to licensing laws, excise duties, advertising, and changes in minimum drinking age; and economic prosperity and employment or unemployment levels may affect levels and patterns of drug consumption (Silbereisen et al. 1995). For example, White and Gorman (2000) concluded that it is not the type of drug per se, but rather the economic conditions of the drug market, which appear to influence the drug-crime connection. Similarly Seddon (2005) emphasised that drug consumption is dependent upon drug supply. Also, according to Pudney (2003), along with the influence of disadvantaged social or family background on drug use and offending, the ‘drug culture’ of society (aggregate drug prevalence trends) was also extremely important. Indeed as Measham et al. (2001) recognised, analyses of drug use must be located in the lifestyle of today’s youth and the leisure venues they frequent. With increasing recognition of the normalisation of drug use (South 2002, Lee and South 2003, Parker et al. 1998), writers have begun to look at elements of post-modernity and risk-society in order to explain the linkages between drug use and offending.

Parker et al. (1998) suggested that consumption offers more potential theoretical power than notions of sub-cultural rebelliousness. It has been suggested that, with increased consumption, drug use and offending may be related as commodities. With a focus on consumption, Collison (1996) used biographical narratives to provide a rich description of young male offenders lives, and suggested that drug use and crime serve as important cultural and emotive resources for scripting a particular, and powerful, masculine identity on the street. Drugs may be used as a means of stepping out of daily life and its routines, taking time out from anxiety. In addition, Parker et al. (1998) suggested that drug taking is also about risk taking and using time out to self-medicate the impact of the stresses and strains of both success and failure in modern times. Also, Collison (1996) argued that crime opportunities and drug-consuming opportunities are encountered every day by large

numbers of adolescents.

SECTION 4: COMPETING MODELS

4.1 'DRUG USE LEADS TO CRIME'

This model fits in with Goldstein's (1985) often cited tripartite conceptual framework which sees drugs and crime as being related in three possible ways: psychopharmacological (substances may be seen to have an effect on a person's behaviour); economic compulsive (the cost of drug use may result in someone offending in order to support their drug use); and systemic (drug involvement could lead to offending due to the nature of systems of drug distribution). In support of the 'drug use leads to crime' model, Hussong et al. (2004) found that substance abuse had both proximal and distal (shorter and longer term) effects on desistance from anti-social behaviour over young adulthood. However, they focused on the impact of substance abuse on desistance from offending and did not explore other possible relationships between drug use and offending. Similarly, Stacy and Newcomb (1995) found that having controlled for the possible predictive effects of the other adolescent factors, adolescent drug use significantly predicted criminal deviance in adulthood. However, once again they did not explore the possibility that the relationship may work in the reverse direction. Again, Fergusson and Horwood (2000) did not allow for the possibility of a reciprocal relationship and concluded that:

'While some component of the association between alcohol abuse and crime was spurious and reflected the presence of non-observed fixed confounding factors, even after such adjustment, symptoms of alcohol abuse made an appreciable contribution to rates of offending' (Fergusson and Horwood 2000: 1532).

Newcomb and McGee (1989) found that for both males and females, results provided support for the hypothesis that, in late adolescence, alcohol use increased criminal or delinquent behaviour one year later. This was still the case when sensation seeking was considered, and little support was found for the reverse hypothesis. However, they did not include any other potential common causes apart from sensation

seeking. Also, White and Hansell (1998) found that marijuana and cocaine use were significantly related to later aggressive behaviour (alcohol use was not) and aggressive behaviour did not significantly predict later alcohol, marijuana or cocaine use. Similarly, having controlled for common risk factors, Huang et al. (2001) found alcohol use at age 16 continued to have an effect on interpersonal aggression at age 18, whereas the reverse cross lagged effect was no longer significant.

4.2 'CRIME LEADS TO DRUG USE'

This model is the reverse of the above unidirectional model. For example, it has been suggested that criminally involved individuals are more likely to select or be pushed into social situations in which substance use is condoned or encouraged (White and Gorman 2000). The use of alcohol and other drugs is a consequence of leading a criminal lifestyle. With regard to age of onset of drug use and delinquency, the National Youth Survey (Elliott et al. 1989) found that no one initiated marijuana or poly-drug use before minor delinquency. In general, minor delinquency came first, followed by alcohol use, marijuana use, then serious delinquency and finally poly-drug use. Indeed most studies report that involvement in offending precedes use of drugs (Huizinga et al. 1989, Menard et al. 2001, Pudney 2003, Tubman et al. 2004). Studies of developmental trajectories of drug use and crime indicate very different patterns for each (White and Gorman 2000). Onset of delinquency peaks in mid-adolescence and then declines dramatically after age 18, whereas illicit drug use usually begins in mid-adolescence, and initiation of some substances continues into young adulthood (White and Gorman 2000, Ford 2005). For example, lifetime prevalence of cocaine trying for the North West Longitudinal Study cohort increased from 5.9% at age 18 to 24.6% at age 22 (Williams and Parker 2001). The fact that the 'age-crime curve' does not appear to 'fit' for drug use, highlights the importance of looking at the relationship between drug use and offending over the teenage years. Studies, which have examined the temporal relationships between drug use and offending, report bewilderingly contradictory findings.

White and Hansell (1996) and White et al. (1993) found that early aggressive behaviour predicted later alcohol use, and alcohol use was not related to subsequent increases in aggressive behaviour. Similarly, Kandel et al. (1986) found that time one

(age 15-16) delinquency predicted time two drug use (age 24-25) and the reverse was not true. Also, Bui et al. (2000) looked at the relationship between problem drug use, delinquent behaviour and emotional distress and only found one cross-lagged effect. Greater frequency of delinquent behaviour at grade ten led to greater problem drug use at grade twelve. However, they did not examine the potential role of other factors in the relationship. From a review of the literature Wagner (1996) concluded that strong support was found for the proposition that early violent behaviour predicted later substance use.

4.3 BI-DIRECTIONAL MODEL

The bi-directional or reciprocal model suggests that the relationship between drug use and offending works in both directions, which may then become mutually sustaining. For example, a consequence of drinking or drug use may be increased involvement in offending, which may lead to more substance use. Elliott et al. (1989) concluded that whereas delinquency is more likely to influence onset of drug use than the reverse, serious drug use (repeated poly-drug use) is more likely to influence the maintenance of serious delinquency. Many studies found that although initiation into delinquency precedes drug use, changes in drug use affect changes in criminal behaviour, or each appears to increase the likelihood of continuity of the other (Menard et al. 2001). Some studies have found that the relationship appears to go in both directions, though this may be the result of common influences. For example, Huizinga et al. (1989) found that serious delinquency may play some role in the onset of poly-drug use, but poly-drug use may contribute to the maintenance or continuation of serious delinquency over time. However, they concluded that the relationships are probably developmental and reflective of common underlying influences rather than directly causal.

4.4 THE COMMON CAUSE MODEL

This model suggests that drug use and offending are not causally linked but that they share a common aetiology (such as a common psychological or social cause). For example, Jessor and Jessor's (1977) 'problem behaviour theory' asserts that those who are prone to one behaviour (for example drug use) are also prone to

another (for example offending). The strongest position in favour of the generality of deviance sees different deviant behaviours as manifestations of a single underlying construct. Otero-Lopez et al. (1994) found that delinquency and drug abuse are in general better predicted by other factors (family, peer and personality variables) than they are by each other. Yet Osgood et al. (1988) argued that:

‘Involvement in one form of deviant behaviour is predictive of later involvement in others, not because of mutual influences, but because each partially reflects a general tendency toward deviance.’ (Osgood et al. 1988: 91).

However, they acknowledged that theories that treat different deviant behaviours as manifestations of a single general tendency can account for some but not all of the variance in these behaviours (Osgood et al. 1988).

4.5 INDEPENDENT CAUSE MODEL

This suggests that drug use and offending are two distinct phenomena with separate influences. Therefore, the two are said to appear to be causally related when in fact they are each the product of different causes. Research has suggested that there may be a degree of etiological independence. For example, McCord (1995) concluded that a single underlying dimension of deviance did not appear to explain both alcoholism and criminality. Moreover White et al. (1987) reported that there was a degree of etiological independence in serious adolescent substance use and serious forms of delinquency. Although Menard and Mihalic's (2001) results indicated that alcohol use had an important role as an influence on violence, and cited both adolescent and adult involvement in illicit drug markets as a risk factor for violent crime and victimisation, they concluded that the results suggested substance use and violence are distinct phenomena, neither having a direct effect on the other.

4.6 COMBINATION MODEL

This model combines models three, four and five, suggesting that drug use and offending may be influenced by a similar set of causes (common and specific factors), but may also exert some influence on one another (Menard and Mihalic 2001, Ford 2005). Support has been provided for all of the models, and some more recent commentaries recognise that research findings may be best understood as

supporting a combination of models rather than just one. For example, Brook et al. (1995) did not find a reciprocal relationship between aggression, drug use and theft or vandalism. They found that certain aspects of peer, family and school environment were consistent with a common-cause model for drug use and delinquency, but certain aspects of environmental context and parent-child domains were in accord with a dissimilar cause model (Brook et al. 1995). Also, Mason and Windle (2002) found that substance use and delinquency were 'partly a manifestation of a general tendency toward substance use (or delinquency) and partly a unique phenomenon' (Mason and Windle 2002: 68). Moreover, their findings were also supportive of a model arguing that substance use and delinquency were directly related to one another and were also influenced by a similar set of causal factors (Mason and Windle 2002). Similarly, Menard et al. (2001) argued that 'substance use and crime may be influenced by the same or a similar set of causes, but also may influence one another directly' (Menard et al. 2001: 273). Also, Hough et al. (2001) suggested drug use and offending may share causal roots and be mutually sustaining through a reciprocal relationship.

Findings are confusing and support can be found for each of the models. No one single model can explain the relationship for all groups of people. The relationship is likely to vary for different: types or levels of drug use and offending; stages in the developmental cycle; and subgroups of the population. These models should not be seen as being intrinsically oppositional to each other. It may well be that the relationship is best described by employing a combination of models. Earlier offending may help explain drug use, which in turn may contribute to the continuation of offending. At the same time both may be explained by a similar set of factors (some common and some distinct). Reviewing the literature for the purposes of this chapter has highlighted that in focusing on establishing which of the five models fits best, the crucial issue of explaining *how* drug use and offending are related is often neglected. This fits in with Matza's (1969) observation that, in the search for a model of behaviour, which will predict diverse phenomena, the phenomena themselves receive very little attention, with efforts to discover causal patterns taking priority. The central focus of this review has not been on models of causal effect but on various explanations for drug use, offending or both, which may

help us to explain the relationship between the two.

The body of research that has attempted to establish which causal model best reflects the relationship between drug use and offending over the teenage years has produced contradictory and confusing findings. Some commentators do not see the relationship as causal. For example, Parker et al. (1998) argued that, although there is a small minority of young people who are involved in persistent offending and alcohol and drug use, their disordered and delinquent career is associated with, but not caused by, their alcohol and drug use. Although Hough et al. (2001) acknowledged that people who try illicit drugs are more likely than others to commit other forms of law breaking, they concluded that there was no persuasive evidence of a causal linkage between drug use and property crime for the vast majority of drug users. Moreover, Measham et al. (2001) found that large numbers of 'respectable' people managed their dance drug use 'successfully' and pointed out that the UK drugs strategy does not admit that much Class A drug use is not linked to criminal careers. Similarly, Glassner and Loughlin (1987) argued that drug-taking was widespread amongst American adolescents.

SUMMARY AND CONCLUSION

There is a distinct lack of UK based longitudinal studies on this topic, and also of research combining quantitative and qualitative methods. It is clear from this review of the literature that the relationship between drug use and offending is complex and dynamic. Findings indicate that drug use and offending are associated, and onset of offending precedes drug use. Research has produced contradictory and confusing findings, with support to be found for all models. Taken together, findings support a 6th or combination model, which acknowledges that drug use may be the result of a similar, but not identical, set of causes that simultaneously exert some influence on one another.

Developmental criminology recognises continuity and change over time and focuses on life transitions as a way of understanding patterns of offending (Sampson and Laub 1993). As Menard et al. (2001) pointed out:

‘Because the meanings and the potential legal consequences of these

behaviours vary over the life course, it is important to examine the relationship of substance use to crime in a developmental, life course perspective to see whether the relationship changes with age.' (Menard et al. 2001: 274).

The nature of the relationship between drug use and offending may change over the life course (White and Gorman 2000). Also, White and Hansell (1998) concluded that data suggest that the long term as well as acute relationships between aggression and drug use vary by drug type and stage of the life cycle.

From the literature it is apparent that different relationships between drug use and offending exist for different subgroups of the population (Chaiken and Chaiken 1990, MacCoun et al. 2003). The relationship between drug use and offending varies by the type of offender and type of offence (Welte et al. 2001) and by populations of drug users and by the amount and frequency of drug use (Huizinga et al. 1989). White and Gorman (2000) stated that studies (White et al. 1987; White and Labouvie 1994) indicated there are several heterogeneous groups of adolescents. For some, drug use and delinquency are closely related, while for others they are independent of each other. For some individuals, the acute cognitive effects of certain drugs increase the propensity toward illegal behaviours; for others, deviant behaviour may lead to involvement in peer groups that provide opportunities and reinforcement for increased illegal activity and drug use; and for yet others, shared personal characteristics and environmental factors may increase the risk of involvement in all types of deviant behaviour (White et al. 2002). The drug-using/crime-committing population is composed of subgroups of individuals displaying different causal paths (White and Gorman 2000). 'It appears that one single model cannot explain this relationship for all adolescents' (White et al. 2002: 149).

The predominantly U.S. based longitudinal research on the topic has primarily aimed to ascertain the direction of causal effect. With regard to *how* drug use and offending are related, a variety of explanations have been reviewed in this chapter. This review of literature has found that it is particularly important to take into account: socio-structural position; the strength of social bonds to family and school; and interactions in peer group contexts, in order to explain drug use and offending. Although similar explanations and theories are often employed in the exploration of both drug use and offending over the teenage years, it is important to

acknowledge that there may be differences in the meaning of these behaviours for young people.

Pharmacological explanations must also take account of other factors within the individual and the environment and the psychopharmacological model has received little support in the adolescent research literature. Similarly, the economic compulsive explanation has not been supported among adolescents, with young people largely funding drug use through legitimate means. The relationship between drug use and offending may vary depending on ethnicity, age and gender. Without an understanding of environmental influences, genetic factors do not provide adequate explanatory power. With regard to behavioural characteristics, the potential for change, rather than just continuity, should be recognised. Although personality traits seem to be important, factors such as self-control are not stable over the life-course and sociological influences should be taken into account.

Although drug use is prevalent in all segments of society, it must be recognised that associated problems often affect socio-economic groups differently. Neighbourhood factors may impact on drug use and offending differently. Various family and school related factors have been found to be important in explaining both drug use and offending. Findings have suggested that factors such as lack of attachment and failure to monitor children were related to both drug use and offending, whereas parent child conflict was related to offending. Peer group interactions are extremely important in understanding drug use and offending. Aspects of a deviant lifestyle may contribute to involvement in other deviant activities through factors in the gang milieu such as accessibility or sub-cultural norms. An understanding of social meanings and contexts are central to understanding the relationship between drug use and offending. Broader societal influences such as changes to availability, lifestyles, consumption and the nature of society at large may also have an impact.

Effective explanations should take account of a combination of elements and there is widespread recognition of this within the literature. In relation to the shorter-term relationship Fagan (1990) concluded that:

‘Individual attributes, both psychological and physiological, combine with cognitive and emotional factors that are interpreted through social-psychological contexts and situational factors to explain the interaction

between substance and individual, set, culture, and behaviour.’ (Fagan 1990: 299).

The importance of looking at a combination of elements in order to explain the linkages between drug use and general offending, not just aggressive or violent behaviour, has also been acknowledged. As Lilly et al. (2002) recognised, Sampson and Laub’s (1993) message is that trajectories in crime are caused, not by one type of variable or another, but rather by the intersection of individual and social conditions. Laub and Sampson (2003) stated ‘our interest is in the interaction between life-course transitions, macro-level events, situational context, and individual will.’ (Laub and Sampson 2003: 281).

Socio-structural factors have an impact on the degree to which young people are bonded to society. Young people experience different levels of informal social control over the teenage years. Those who are weakly bonded to parents and school, i.e. are less supervised by parents and have bad relationships with parents and teachers, are more available to engage in deviant peer group contexts. Over the teenage years, young people have different opportunity structures open to them. During interactions with friends, the social acceptability of behaviours are defined, opportunities arise and socially situated decisions are made. Young people choose between alternatives, but freedom is not equally distributed (Matza 1964). Laub and Sampson’s revised theory of crime ‘recognises the importance of human agency and choice as embedded in social structures.’ (Laub and Sampson 2003: 278). People become embedded in life courses that dramatically constrain their current choices and likely futures (Lilly et al. 2002). However, it should also be recognised that ‘turning points’ or changes in structures, situations and people can offer informal social control and facilitate the process of desistance from crime (Laub and Sampson 2003).

In relation to young people’s lifestyles, Miles (2002) recognised that, paradoxically, whilst the opportunities open to young people appear to be immense, their ability to be free is affected by structural constraints. Drug use and offending may be attractive to young people. Indeed Shildrick (2002) found that curiosity was a key factor, which the majority of ‘ordinary’ young people (who used drugs occasionally and had a cautious or critical approach) cited as their motivation for

using drugs. Also, Glassner and Loughlin (1987) emphasised that adolescents presented themselves as actors, not passive respondents to external influences. When discussing their own drug use, heavy users emphasised that they took drugs primarily because they enjoyed the effect. Similarly, in the opening sentence of his book on the seductions of crime Katz asserted that:

‘the study of crime has been preoccupied with a search for background forces, usually defects in the offenders’ psychological backgrounds or social environments, to the neglect of the positive, often wonderful attractions within the live experience of criminality’ (Katz 1988: 3).

As Rhodes et al.’s (2003) pointed out, pleasure and preference are absent in most risk factor research. Measham (2004) stated that with the acknowledgement of the cost-benefit decision-making processes young people discussed when interviewed about drugs, there was a new emphasis on adolescent agency. However, she argued that socio-economic change has had a differential impact on various sections of society which has meant that ‘choice -including choice in relation to drug use -is not something shared equally by all those within and on the margins of consumer society.’ (Measham 2004: 213).

This review of literature and research on drug use and offending over the teenage years has shown that the perspective of young people themselves is all too often neglected. It is important to recognise and develop an understanding of the decisions young people make, while acknowledging that these are made in different contexts. Young people experience different opportunity structures, which are shaped by socio-structural and social control factors. Weak social bonds and deviant peer group contexts help explain offending, which itself may further weaken social bonds and deepen involvement in deviant contexts, in turn leading to drug use or further offending and so on. Improvements to social bonds and changes to lifestyle and peer group interactions are important in explaining reductions in offending or drug use. Young people’s drug use and offending can be explained by a combination of levels of informal social control and peer group interactions in which socially situated decisions are made.

This research fills a gap in the literature by looking at the relationship between drug use and offending over the teenage years longitudinally for a cohort of young people from different backgrounds. It is clear from this review of the literature

that, in describing the relationship, a variety of possibilities should be explored, rather than the primacy of one model being assumed. A promising line of inquiry is that drug use and offending are explained by a similar set of factors and have an impact on each other. The relationship may be different at different stages in the developmental cycle, and for different subgroups of young people. Much of the literature has only included males, whereas this research looks at the relationship for females as well. By taking into account a combination of socio-structural position, weak bonding to family and school, deviant peer group contexts and engagement in other deviant activities in explaining drug use and offending, this research builds on previous research findings. Adding in an important way to research on the peer explanations, the Edinburgh Study data enables the analysis of self-report data on matched named best friends within the cohort. This review of the literature also highlights the importance of looking at the significance and meaning of behaviours for young people. By conducting in-depth interviews and getting an insight into their lived experiences, as well as undertaking secondary analysis of six sweeps of data from an entire cohort of young people, this thesis fills a gap in the literature and provides an important opportunity to improve our understanding of the relationship over the teenage years. The next chapter moves on to explain more about how research methods were employed in order to meet the aims of the thesis.

CHAPTER 3: METHODS

INTRODUCTION

Nested within a major longitudinal study, the Edinburgh Study of Youth Transitions and Crime, this doctoral research utilises both quantitative and qualitative methods in working towards offering answers to the central research problem. In providing explanations for drug use and offending it is advantageous to use this combination of research methods. The longitudinal design allows for the exploration of how drug use and offending are related over the teenage years.

‘The longitudinal method not only charts the process of individual change and development, but also generates much stronger evidence for testing causal explanations than any cross-sectional study can.’ (Smith and McVie 2003: 176).

Information about the Edinburgh Study as a whole is provided in this chapter. Quantitative methods, which were employed in the secondary analysis of annual self-report questionnaire data between the ages of twelve and seventeen, are detailed in section 2.1. The in-depth interview process (selection of interviewees, design of the interview schedule, undertaking the interviews and analysis of the data) is discussed in section 2.2. The last main section reflects on some of the strengths and limitations of the Edinburgh Study and this doctoral research as a whole, and this is followed by a brief conclusion.

SECTION 1: THE EDINBURGH STUDY

It is necessary to provide an outline of the design and methods of the Edinburgh Study Edinburgh Study of Youth Transitions and Crime before entering into a discussion about the methods employed specifically for the purposes of this thesis. Much of this account is based on an article by Smith and McVie (2003),

which may be consulted for further details. The Edinburgh Study is interested in transitions during adolescence and early adulthood, rather than early childhood influences. The aims of the study are:

- To investigate and identify the factors which impact on young people's involvement in offending behaviour and desistance from it.
- To examine the striking differences between males and females in terms of the extent and patterns of criminal offending.
- To explore these in the contexts of: individual development; interactions with official agencies of social control and law enforcement; and the social and physical structures of neighbourhoods.
- To develop new theories explaining offending behaviour and contribute to practical policies targeting young people.

The theoretical framework behind the Edinburgh study is based on the viewpoint that further advances in criminological theory require the synthesis of elements of existing theories (Smith 1996). Social control theory provides the basis of the framework, to which insights from other theories are added. The study has been funded by the Economic and Social Research Council¹, the Scottish Executive and the Nuffield Foundation. Prior to the Edinburgh Study, the Cambridge Study of Delinquent Development was the most important criminological longitudinal study of a general population cohort in the UK. The Edinburgh Study aims to build on the Cambridge Study and address some of its limitations by: including females as well as males; adding a sociological perspective; including a larger sample size; and conducting annual sweeps during the teenage years. The Edinburgh Study has collected information from a range of sources: young people themselves (annual questionnaires and semi-structured interviews); parent and teacher questionnaires; school, children's hearing, social work, police juvenile liaison officer² and Scottish criminal records; and neighbourhood information. However, data used for this doctoral research relates predominantly to the annual self-report questionnaires completed by cohort members.

¹ Grant numbers R000237157 and R000239150

² Special police officer who deals with children

The design of the study is longitudinal in nature, with the aim being to provide a continuous description of the lives of the young people. The study was carried out within the city of Edinburgh using a single cohort. The target group for the study were all children who started secondary school in the city of Edinburgh in 1998, when they were aged between eleven and a half to twelve and a half years old. The study therefore includes young people from a variety of social backgrounds and neighbourhoods, rather than only focusing on areas of deprivation. All 23 state secondary schools, 8 out of 14 independent sector and 9 out of 12 special schools agreed to take part, which meant that 92% of the target group were in the cohort. Response rates for the cohort (based on eligible children in participating schools) were: 96% at sweep 1; 96% at sweep 2; 95% at sweep 3; 93% at sweep 4; 89% at sweep 5; and 81% at sweep 6. There were 4,300 respondents at sweep 1; 4,299 at sweep 2; 4,296 at sweep 3; 4,144 at sweep 4; 3,861 at sweep 5; and 3,531 at sweep 6.

Data was collected via annual self-completion questionnaires. A range of information about each individual was collected, with some topics (like drug use and offending) being included every year and others being included at different points in time. Self-report questionnaires were used to collect information about the young person's lifestyle, their family and living circumstances, personality, health behaviours, neighbourhood, self-reported offending, friends, school, and other things that happen to them. Questionnaires were developed with reference to questions used in other comparable studies and were piloted in schools outside Edinburgh. Children and parents were given assurances of confidentiality and the purposes of the study were explained. An opt-out letter was sent to parents at the outset and on all occasions children could decline to participate. Questionnaires were completed in classrooms under the supervision of one or two researchers, and children were given assistance where necessary. An effort was made to include all those who were not present at school by contacting them at home (initially they were sent a questionnaire by post but if this was not returned they were visited by an interviewer).

At the first sweep, young people were asked about their lives up to then. From then on the reference period was the previous school year. The aim of this approach was to develop a comprehensive life course perspective. Questions asked during the first sweep, age 12, referred to whether the young person had ever

engaged in an activity (for example drug use or offending), whereas subsequent sweeps asked whether they had done these things 'in the last year'. Although this is useful in terms of providing information about young people's lives so far, the limitation is that some of this data is not directly comparable (i.e. between sweeps 1 and later sweeps) as it refers to different time periods ('ever' compared to 'in the last year'). Sweep 2 refers to the period when cohort members were aged 12 and a half to 13 and a half, but is referred to as 'age 13' for simplicity sake. At any one sweep the age range of the cohort varied because it encompassed everyone in a particular school year.

SECTION 2: DOCTORAL RESEARCH

The fact that this research was conducted in conjunction with the Edinburgh Study obviously enabled access to far more data than could possibly have been collected within the time and resource constraints of a doctoral study. My employment as a part-time interviewer with the Edinburgh Study at sweep six was the full extent of my limited involvement in the Edinburgh Study data collection process, i.e. administration of annual self-report surveys. The substantive research which I undertook for this thesis involved: secondary analysis of six sweeps of annual self-report data, from age 12 to age 17; and in-depth interviews which I conducted with 27 of the cohort members when they were 18 to 19 years old. It could be said that this doctoral research involves two types of longitudinal designs: a prospective longitudinal study that repeatedly interviewed the same subjects over the teenage years; and what could be termed a retrospective or 'quasi-longitudinal' study in which interviewees were asked about things that had happened over their life-courses thus far (Ruspini 2002).

For the purposes of this doctoral research both quantitative and qualitative analyses are concerned with developmental sequences, making use of the longitudinal design of the Edinburgh Study. This research is interested in the transitions that young people negotiate over the teenage years, in moving from

childhood to adulthood. Development involves change and progression through stages. Rutter and Rutter define development as:

‘Systematic, organized, intra-individual change that is clearly associated with generally expectable age-related progressions and which is carried forward in some way that has implications for a person's pattern or level of functioning at some later time’ (Rutter and Rutter 1993: 64).

The Edinburgh Study makes it possible to study change at the individual level and is a prospective longitudinal study, which may be considered the most ‘truly longitudinal’ type (Ruspini 2002). The linkages between drug use and offending may be examined on a shorter or longer timeframe. However, the central focus of this thesis is on the developmental (rather than immediate) relationship between drug use and offending.

2.1 SECONDARY ANALYSIS OF QUESTIONNAIRE DATA

The quantitative element of this research involved the secondary analysis of six annual sweeps of annual self-report questionnaire data stored within the Edinburgh Study dataset. In looking at whether drug use and offending followed similar patterns over the teenage years, peak ages of onset and patterns of prevalence of self-reported drug use and offending data between the ages of 12 and 17 (for the cohort as a whole) were compared. Establishing whether the strength of the relationship changed over the teenage years involved looking at drug users’ involvement in offending; offenders’ involvement in drug use; and the strength of the relationship between the two at different points in the teenage years. This was done by comparing means and using odds ratios.

The review of the literature found that demographic and socio-structural, familial, school, peer and lifestyle factors are all important in understanding drug use and offending. Variables were chosen in relation to the theoretical position outlined here which recognises that: the socio-structural position in which young people are located has an impact on their experiences; young people who are less supervised by parents and have bad relationships with parents and teachers have different opportunities; they are more likely to engage in deviant peer group contexts in which drug using and offending opportunities occur and the social acceptability of behaviours are defined; and involvement in deviant activities makes engagement in

other deviant activities more likely. Such factors were appropriately measured by means of self-report questionnaires and relationship of these variables to drug use and offending was firstly looked at in exploratory analyses in chapter five. These factors were subsequently entered into separate regression analyses explaining drug use and offending.

So building on findings from the literature review it was hypothesised that drug use and offending may both be explained by a set of factors, listed here by domain:

- a) Socio-demography (being male, manual or unemployed socio-economic status of family, neighbourhood deprivation, not living with two parents);
- b) Low informal social control /weak bonds (low parental monitoring, parent-child conflict, stressful life events, bad relationship with teachers, low importance of school, moral beliefs accepting of offending);
- c) Deviant peer group context (named best friend's volume of offending, named best friend has used drugs, gang membership, hanging about score);
- d) Deviant activity (volume of drug use or offending, weekly drinking and weekly smoking)³.

The role of each of these factors is explored in further detail here. In explaining drug use and offending it is important to look at socio-demographic factors. Being male, from low socio-economic status background and living in a deprived neighbourhood may make involvement in offending more likely. However, some research has suggested that gender, socio-economic status and neighbourhood deprivation may be differently related to drug use. For example females and those from higher socio-economic status backgrounds may be more likely to use drugs. Not living with two parents may also be related to drug use and offending. Socio-structural position may impact on drug use and offending behaviour through family factors. Levels of informal social control or strength of social bonds to family and school are important in explaining deviant behaviour. Those who are subject to lower levels of parental monitoring (less informal parental social control) are likely to be more available to engage in deviant peer group contexts. The quality of relationships or attachments to parents and teachers is also important in explaining involvement in

³ For details of the make up of all variables included in these analyses see Appendix A

drug use and offending. Those who experience higher levels of parent-child conflict and have bad relationships with teachers are less bonded to family and school and more likely to engage in deviant peer group contexts. Experiencing stressful life events may also be important in understanding family dynamics. For example, parental separation may put a strain on parent-child relationships. Lack of commitment to conventional values is likely to be important in explaining engagement in deviant peer group contexts and drug use and offending. Not seeing school as being important is used in this research to look at commitment. Beliefs were examined by looking at acceptance of offending, i.e. saying it is ok to engage in offending under certain circumstances.

Depending on the degree to which young people are supervised by parents and have good relationships with parents and teachers they have varying opportunities open to them are likely to be engaged in different routine activities (main and leisure activities). Those who experience lower levels of parental supervision and have weaker bonds to family and school are more likely to spend time in deviant peer group contexts. Peer group context is of central importance in understanding both drug use and offending. It is within deviant peer group contexts that opportunities occur and the social acceptability of behaviour is defined. Spending time with young people who are involved in drug use or offending is likely to have an impact on young people's own behaviour. However, it is not surprising that young people tend to report that their friends engage in similar activities to themselves. The Edinburgh Study enables the matching of data from one cohort member to data on their named best friend's self-reported drug use and offending. This provides an unique opportunity for looking at the relationship between own and friend's behaviour rather than simply self-reported reporting of friend's involvement, which may arguably be more a measure of own involvement than that of friends. Being a member of a gang is likely to involve spending time with people who offend and or use drugs. Hanging around is a situational context in which young people are more likely to engage in drug use and offending. Involvement in a group or social context where drug use or offending occurs may even lead to involvement in the other behaviour. Engagement in other deviant activities, such as offending or

substance use (weekly smoking, weekly drinking or drug use), may help in explaining involvement in another behaviour.

Separate regression analyses were undertaken explaining drug use and offending at different points in time over the teenage years. These were compared in order to see whether drug use and offending could be explained by a similar set of factors. Exploring whether drug use had an impact on offending, or vice versa, involved establishing whether drug use continued to be significant in explaining later offending (and vice versa) having taken account of a set of explanatory factors. Longitudinal regression models were used to analyse annual self-report data for drug use, offending and this set of explanatory factors. In order to look at whether the strength of the relationship changed over time, these analyses were undertaken at different points in the teenage years.

Preparation of variables for analysis

Variables were prepared for analysis by: re-coding them into different categories; inverting the order or creating new variables from existing ones; dealing with missing data; and standardising variables so as they would be comparable. Ordinal variables were sometimes collapsed into binary variables. For example, a binary version of smoking behaviour (weekly smoking or less than weekly smoking) was used in the analyses in preference to the ordinal measure (daily smoking, weekly smoking, occasional/ monthly smoking, non-smoking). In order to make different continuous variables comparable they were standardised using z-scores. Histograms were looked at to see if variables were symmetrically distributed and their skew statistics were also examined. For example, volume of self-reported drug use and volume of self-reported offending variables were highly positively skewed, with cases clustered at the low end of the distribution. Transformations were used to correct for skew by changing the shape of the distribution of a variable by expressing it in a different way statistically. For example, one variable, i.e. named best friend's self-reported offending; was transformed using a logarithmic transformation. When continuous variables were highly skewed and this could not be corrected for by transformation, a decision was made to recode them as ordinal variables. Volume of

self-reported offending and volume of self-reported drug use⁴ were re-coded into ordinal variables in preparation for their use as both explanatory and outcome variables in regression analyses.

Missing data and weighting

Data may be missing due to item non-response (i.e. to individual questions) or unit non-response (i.e. by a case at a particular sweep). Every attempt was made by the Edinburgh study team to minimise the amount of missing data during the design stage and the data collection process. Data may be missing at random, but if not bias may be a problem and therefore missing data must be dealt with appropriately. McVie et al. (forthcoming) discussed different approaches for dealing with non-response in relation to the Edinburgh Study and showed that restricting the analysis to the 55% who were complete responders at every sweep selected a sample with a lower rate of offending. Weighting attempts to correct the distributions in the sample data to approximate those of the population from which it is drawn, whereas data imputation involves the replacement of missing data with a substitute (McVie et al. forthcoming). The same research found that at sweeps 1 and 2, non-responders were more likely to be non-white, non-serious offenders and non-truants; whereas, from sweep 4 onwards, the non-respondents were more likely to be white, persistent offenders and known truants. The authors acknowledged that the volume of data on each subject made imputation difficult in practice and imputation led to many types of difficulties.

Imputation was not used for the purposes of this research due to time, resource and software constraints. Weighting was used as it was relatively straightforward and was recommended in preference to imputation for use with Edinburgh Study data by McVie et al. (forthcoming). Weighting was used to address the problem of non-response due to declining participation rates. Weights were created by the Edinburgh Study research team using logistic regression modelling to estimate the probability of response at each sweep, clustering groupings of individuals with similar response probability into weighting classes and calculating a weighting factor for each class. In the logistic regression models age, gender, ethnic

⁴ Full details of the make-up of variables used in the analyses can be found in the Appendix A.

group, school leaver status, deprivation status, offending status, reporter status, police status and school status were used as predictors in estimating the probability of response at each sweep. These predictor variables were chosen because they were associated with offending and response-rate propensity. Weighting was used to deal with data missing due to unit non-response. Larger weights are applied to those with certain characteristics, who have the least probability of responding.

Descriptive and inferential statistics

In order to look at whether drug use and offending followed similar patterns over the teenage years, descriptive statistics were presented in chapter four. Frequency tables were employed to look at the prevalence of the use of various substances between the ages of 12 and 17, and results were presented using line graphs. Patterns of prevalence and age of onset of drug use and offending over the teenage years were also compared and presented using line graphs. In establishing whether the strength of the relationship changed over the teenage years, the average volume of offending scores for drug users and non-drug users and the average volume of drug use scores for offenders and non-offenders at each age were compared. Also, odds ratios were used to indicate the strength of the relationship between self-reported substance use and offending at each age over the teenage years.

In order to begin to explore whether drug use and offending may be related to a similar set of factors preliminary analyses are presented in chapter five. For binary variables the average volume of drug use and average volume of offending for these groups (for example male versus female) were compared. Relationships between continuous variables (for example parent-child conflict score) and volume of drug use and volume of offending were investigated by calculating correlation scores. Regression analyses were used in chapter six to look at the relationships between variables in further detail.

Ordinal regression

The use of ordinal regression in the social sciences is still rather novel.

Regression was suitable for the purpose of this analysis. Multiple regression enables the analysis of the relationship between a set of explanatory factors and a dependent variable. It allowed for the examination of whether certain factors (e.g. peer factors) helped to explain drug use (or offending) in the context of other factors (e.g. family factors). Ordinal regression was used because the outcome variables were skewed.

Regression analyses were used here to explain drug use and offending. A set of explanatory factors was included in a model with drug use as the outcome variable and the same factors were then included in another model, with offending as the outcome variable. This was done earlier and later in the teenage years. Multiple regression provided a means of analysing the relationship between drug use and offending, by allowing a model to control for the effects of a set of explanatory variables, in order to see whether involvement in drug use had an impact on offending or vice versa.

In developing models explaining drug use and offending for the purposes of this doctoral research, linear regression was not suitable due to the non-normal distribution (skew) of the data. Instead, drug use and offending were treated as ordinal variables with a number of ordered categories, i.e. from no offending up to the highest level of offending. Whereas linear regression assumes the relationship between the independent variables and the dependent variable is linear, logistic regression assumes the relationship is logarithmic. Ordinal regression models involve the simultaneous estimation of a series of binary outcomes. The ordinal (cumulative odds) model uses all the data available to assess the effect of independent variables on the log-odds of being less than or equal to a particular category (O'Connell 2006), i.e. the probability that responses will be less than or equal to a certain category, divided by the probability of the response being greater than that category.

The value with the highest score was used as a reference category in these ordinal regression models. Variables were prepared for use in regression models, often by inverting them. Categorical (binary and ordinal) explanatory variables were entered as dummy variables in ordinal regression models. Z-scores for continuous predictor variables were used to make them comparable. A backward procedure was used, i.e. at first the model included all the variables but every time I re-ran it I removed the least statistically significant variable until all the remaining variables

were significant. The location command was used to ensure the same cases were included in each initial and final model. Regression models were run on weighted data. The weight relating to the sweep of the dependent variable was used because this was the variable of primary interest and therefore the one for which we want to make adjustments for missing cases. When some of the analyses were run a significant number of cases were missing, particularly with longitudinal ordinal regression models at later sweeps. It was important to look at whether those who were missing were different to those who remained in the models because bias may have an impact on the findings. The implication of missing values will be discussed in further detail in Appendix B3.

The results of ordinal regression models were presented in tables detailing the names of all variables entered as explanatory variables in the initial model and estimates and p values for all the variables included in the final model. Also, the number of cases included in the model (i.e. number of cases if model was run without weights) is noted below. Pseudo r square is not noted here because although it attempts to give an indication of the strength of association between the dependent variable and the predictor variables it does not give an adequate measure of the proportion of variance explained.

2.2: IN-DEPTH INTERVIEWS

Research aims and design

In addition to secondary analysis of questionnaire data, in-depth interviews were used in order to get a deeper understanding of young people's lifestyles and the place which drug use and offending has in their lives. Qualitative research facilitates a more detailed description of the way young people live and the contexts in which they use drugs and offend. Young people were asked about their friends, family and school experiences as well as their drug use and offending. The qualitative dimension adds depth to explanations (derived from the review of the literature and quantitative analyses) of drug use and offending. In-depth interviews were used to look at the social significance of drug use and offending and whether they had similar roles for young people. They were used to establish whether the social and symbolic meanings

of these behaviours changed over the teenage years. It was also possible to look at whether the relationship between drug use and offending varied by subgroup.

Data from in-depth interviews made possible the further interpretation of quantitative findings. For example, in-depth interviews were used to delve deeper into the role of interactions with peers. It allowed me to focus on young people's subjective experiences and interpretations of the world. In-depth interviews were the most appropriate method of data collection due to the fact that: depth rather than breadth was desired; emotions, experiences and feelings were to be investigated; and sensitive or personal issues were to be covered (Denscombe 1998: 111). As Glassner and Loughlin (1987) pointed out, drug use scares adults and as a result the perspective of young people themselves is often neglected. Findings from in-depth interviews permitted me to tell stories from young people's viewpoints and in their words.

Design of interview schedule

Good preparation was still essential despite the unstructured or semi-structured nature of the chosen method of data collection. The aim was to involve young people in a 'conversation with a purpose'. So I decided to use an 'informal or unstructured or semi-structured style of interviewing which employs a set of themes and topics to form questions in the course of conversation' (Burgess 1984: 102). In order to make the most of this 'interview guide approach' (Patton 1990: 288) a topic guide or interview schedule was prepared by building on previous research in the area and focusing on the research objectives. In theory, the guide is a 'freehand map to the situation, pointing our general direction, but not specifying which nooks and crannies will be explored' (Rubin and Rubin 1995: 163-164). Open-ended questions were used which suited the nature of the research. Rubin and Rubin (1995) talk of three types of questions: main questions, probes and follow-up questions. From previous interviewing experience I knew it was useful have follow-up questions prepared. Having the outline of the interview schedule committed to memory was helpful as this allowed me to engage fully with the interviewee. However, the order in which topics were explored varied as the interview schedule was used flexibly in

response to the particular interview situation. A copy of the interview schedule, which was used, can be found in Appendix C.

Selection of interviewees

Interviewees were selected on the basis of their self-reported drug use and offending at sweep 6, age 17. The sample was chosen 'purposively', i.e. because they held a characteristic that is known or expected to be salient to the research study (Ritchie et al. 2003). The aim was to get an understanding of the lived experiences of young people who had used drugs, some of whom also offended, and some of whom did not. During the initial stages of the quantitative analysis of the Edinburgh Study dataset, cohort members were divided into nine groups on the basis of type and volume of drug use and volume of offending at sweep 6. The nine groups were created by combining offending levels: no offending; lower level offending (up to 15 offences); and higher level offending (15 or more offences) and drug use levels: no drug use; lower level drug use (less than monthly use of cannabis, glue or gas); and higher level drug use (used other drugs or used any drug monthly or more often)⁵. Purposive sampling involves defining and prioritising selection criteria, i.e. specifying the number of participants sought (Ritchie et al. 2003). I was not interested in interviewing non-drug users so the aim was to interview around 12 drug using non-offenders and 18 drug using offenders. During the interview process it became apparent that the subgroups by which young people were selected, i.e. none, lower level, or higher level drug use and offending did not provide enough depth of understanding of these behaviours. Also, those who were interviewed at age 18 to 19 were sampled on the basis of their self-reported drug use and offending at sweep 6, age 17 so their drug use was liable to have changed in the interim.

In any case the initial list of contacts was compiled on the basis of the above criteria. On the advice of Edinburgh study researchers I requested contact details for three times as many individuals as I wished to interview. The initial intention had

⁵ Using the drug use and offending levels the nine subgroups were: a) non-drug using non-offender; b) non-drug using lower level offender; c) non-drug using higher level offender; d) lower level drug using non-offender; e) higher level drug using non-offender; f) lower level drug using lower level offender; g) higher level drug using lower level offender; h) lower level drug using higher level offender; and i) higher level drug using higher level offender.

been to interview thirty young people. The intended numbers of interviewees from each of these initial subgroups are shown in table 3.1.

Table 3.1: Intended numbers of interviewees by initial subgroups

	no offending	lower level offending	higher level offending
no drug use	a) 0	b) 0	c) 0
lower level drug use	d) 3	f) 3	h) 2
higher level drug use	e) 9	g) 3	i) 10

Lists of all the cases in the cohort who belonged to each of these above groupings were printed out and a number of case ID's from each were picked out to make up a list of 90 people to contact. So for example in the hope of interviewing 10 people from group i) (higher level drug using-higher level offenders), 30 case IDs were picked from the total list of 138. Having carried out a number of interviews I felt I had enough of an understanding of cannabis use, so from then on I did look at the self-reported drug use of individuals in more detail in an effort to contact those who had used other drugs. On reflection, perhaps the initial groupings I made for higher level drug use should have been on the basis of either weekly (rather than monthly) drug use or use of drugs other than cannabis/volatiles. Qualitative research can contribute by explaining how experiences of phenomena vary between groups. Ritchie et al. (2003) emphasise the importance of ensuring that the final sample meets the requirements for diversity and symbolic representation.

Having done a certain number of interviews I felt I was still lacking higher level drug users so I selected those who had self-reported volume of drug use of greater than 400 times in the last year. This sometimes involved the daily use of one drug and or frequent use of multiple drugs. Of those selected by this process, more than a third were already on the initial list to be contacted, so as a result of this a further 19 individuals were added to the initial list. In total, in-depth interviews were conducted with 27 of the cohort members when they were 18 to 19 years old. In deciding how many in-depth interviews to conduct a decision should be made about whether a sufficient amount of data has been collected to reflect the experiences of the various groups of interest in depth, rather than deciding to conduct a particular number of interviews. Once I had interviewed a number of people from each of the

subgroups which emerged during the interview process and the experiences of the young people I was conducting interviews with were replicating the experiences of others, that was when I made the decision to stop interviewing.

Contacting potential interviewees

Initially a letter explaining the nature of this particular piece of research was sent out to the 90 young people (see Appendix D) and this was followed up by a telephone call in an attempt to arrange an interview. My request was usually well received and only a few of those whom I managed to speak to directly actually refused to be interviewed. Some of the young people were no longer at the address and some did not respond to messages left with family members. Interviews began during the summer, so some young people were interviewed who would not have been available in Edinburgh during the winter months, as they would have been away at University. It was extremely rare to find that young people were away for the entire fieldwork period because the interviews took place over the course of five months (July to November). Young people who were away on holidays should not have been missed, but a few who were away on a gap year or in the army were the exception. Some young people could not be contacted because they had changed their telephone number and or address. Transient moveable populations such as those vulnerable to homelessness were likely to have been much harder to find. A further attempt was made to try and find any cohort members who were heavier level users and may have been missed out due to no longer being at the address we had for them. This involved putting up posters (see Appendix D) in drug services around Edinburgh asking any young people who were part of the Edinburgh Study and had taken drugs to get in touch, but this did not yield any interviews. I had purposively tried to interview cohort members who reported having used heroin and those who reported the highest levels of drug use at age 17, but I did not find any injecting heroin users. Personnel working in drug services in Edinburgh confirmed that heavily dependent injecting drug users of that age are few and far between.

Interview situation

When young people were contacted and agreed to be interviewed I suggested that either I could come to their house or they could meet me in town and we would use one of the rooms at the University, whichever suited them best. For reasons of safety I always notified someone of my whereabouts and got in touch to say I was safe afterwards. It was essential to ensure that informants were in a suitable state to be interviewed as, if informants were intoxicated, the information received may not be of the highest quality and the reliability of such information would be questionable (Schensul et al. 1999). The research aims were explained and assurances of confidentiality and anonymity were made to interviewees before interviews commenced. Interviewees were then asked for permission to record the interview in order to ensure an accurate depiction of their views (all consented). As Denscombe (1998) points out, memory is unreliable as a research instrument and may result in error and bias, so it was preferable to record interviews. This meant that full attention could be given to the interviewee without having to worry about taking detailed notes, which may have distracted both interviewee and interviewer from the interview process itself. Before starting the interview it is important to ensure that the conditions were as ideal as possible, which was harder in people's homes. This involved ensuring the interview could not be overheard by anyone else, but also minimising background noise, which may interfere with the quality of the recording. Tape recording was useful and increased accuracy, without the tape recorder essential information would have been lost. Tape recording is not an easy way out; the process of transcribing interviews was lengthy. Interviews lasted just over an hour on average, although this varied dramatically depending on young people's breadth and depth of experiences with drug use and offending. Interviews where there was less to cover tended to last just under an hour, while interviews with more drug involved young people took well over an hour. The shortest was 40 minutes and the longest lasted just over two hours.

Establishing rapport

Trust, mutual respect and rapport are essential to a good interview. Reinhartz (1997) speaks of three selves that we bring to social research: research-based selves; brought selves; and situationally-created selves. With regard to trust and my

‘research-based self’, I was in a good position because interviewees’ experiences of the Edinburgh Study seemed to have been favourable in terms of building up their trust because assurances of confidentiality and anonymity had previously been upheld. My ‘brought self’, as a twenty five year old Irish woman may well have influenced the interview situation. The fact that I had lived in Edinburgh for years, but was an outsider in terms of not being from Scotland originally, provided a good balance of ‘insider’-‘outsider’. On one hand I had enough local knowledge, but at the same time had a good reason for asking for things to be explained in more detail. Being an outsider in some respect made it easier to explore in further depth the meanings young people ascribed to certain words, which would have been assumed to be ‘givens’ for an insider. The fact that I did not have a local accent may have meant that interviewees were not as likely to make assumptions about my class or social position.

My gender appeared to have been an asset from the point of view of female interviewees opening up to me about eating disorders and relationships. Although I did not feel my gender had a negative impact on my interviews with males there is no real way of ascertaining if this was the case or not. In terms of building up rapport I felt that my age was an advantage as young people did not see me as too far removed from their experiences. Some interviewees made remarks that led me to believe that they had made the assumption that I was a good deal younger than I actually was. Interviewees appeared to have been at ease with me and were very forthcoming about their experiences. The fact that I had spoken to them on the phone already and chatted to them informally before the interview began also helped with rapport. I aimed to keep my posture relaxed and open, with positive body language. An effort was made to use non-verbal messages such as gestures, facial expressions, eye contact and tone of voice to show interest and encourage flow of information. It was extremely important to focus on what the interviewee was saying rather than thinking about the next question I was going to ask as this could lead to either neglecting what was actually being said or asking questions badly. Probes were used to encourage the interviewee to speak about their experiences in more detail and to try and stop them from wandering off the subject.

Ethical issues

Advice from the British Society of Criminology's Code of Ethics regarding researchers' responsibilities towards research participants was followed. Interviewees were told about the aims of the research and verbally gave informed consent. Assurances of confidentiality and anonymity given to interviewees will be upheld, and names have been changed for that reason. Interviewees were given a £10 high street voucher in exchange for giving up their time to talk to me. In addition to reimbursement, reciprocity is commonly discussed in terms of informal assistance and psychological benefits (Akeroyd 1984). Where appropriate I gave interviewees advice about seeking assistance. The interviewee's definition of the interview experience is important (Oakley 1981). An attempt was made to ensure the interview was as positive an experience as possible. Graham et al. (2006) reported that some of the valued positive aspects of the interview interaction were: empathy and respect; allowing space for sadness and upset; demonstrating interest; making the participant feel comfortable; non-judgemental active listening; warmth; caring; kindness; gentleness; and being able to cope with hearing painful accounts. Graham et al. (2006) found that some of the reasons people said they agreed to participate in in-depth interviews included: the anticipation of personal benefits (for example the expectation of enjoying the interview; seeing the interview as an outlet for reflecting on or articulating important personal experiences); and in the case of a longitudinal survey, a motivation to continued participation was feeling valued and irreplaceable in a longitudinal survey. They concluded that, although participating in research can be intrusive and lead to anxiety and depression for small minorities of participants, participating in research generally emerged as a positive experience for most people in the studies reviewed.

Analysis of data using N6

Computer assisted qualitative data analysis is seen to be useful, especially when a large number of lengthy interviews are to be analysed. However, as Spencer et al. (2003) stated, such software should be seen only as 'analytic support' to aid the process of analysis and not as a replacement for the intellectual role that is required of the researcher. The N6 (NUD*IST 6) package was used to assist with the storage,

analysis and retrieval of data. Analysis of the in-depth interview data involved tagging the data and sorting it by concepts. It was, as Spencer et al. (2003) put it, a laborious process, but worth the investment. I began by coding the data, in a manner which often related to the questions in the interview schedule. Data were coded into main topics (family parent nodes), and within them into more specific topics (tree nodes). During the coding process memoing was used to build up arguments and themes. Over the course of the coding process I went back and tidied up the tree nodes and did some retrospective coding. The analysis process essentially involved the identification of key themes within the data and the analysis of these themes within and between subgroups of young people.

SECTION 3: STRENGTHS AND LIMITATIONS OF THE RESEARCH METHOD

The central advantages of this research lie in its being part of a major longitudinal study and in the use of mixed methods. The Edinburgh Study is notable in that it provides a wide range of information about a whole cohort of individuals, both males and females from a variety of social backgrounds, as they moved through the teenage years. Having data covering the teenage years for the same individuals is an asset. The single cohort design is also simpler and more efficient than other alternatives such as an accelerated longitudinal design. By means of annual self-completion questionnaires the study manages to provide a continuous description of the lives of cohort members between the ages of 12 and 17. As the study focuses on the City of Edinburgh, cohort members are not fully representative of the youth of Scotland. However, Edinburgh's population is diverse and contains extremes of poverty and wealth and high and low crime and drug use areas. Furthermore, the fact that the study focuses on one city is beneficial in terms of cost and efficiency, for example it greatly reduced the number of organisations involved in the study. A single local authority, social work department, children's hearing district and police force were involved instead of many. It also meant that the chances of achieving

difficult research objectives were increased, because local people and institutions are inclined to support a localised research effort.

Validity and reliability

Both the Edinburgh Study and by extension this doctoral research is heavily reliant on self-report measures of drug use and offending. As Smith and McVie 2003 note:

‘Criminologists who have reviewed the extensive evidence on validity and reliability of self-reports have generally come up with fairly optimistic conclusions (e.g. Huizinga 1991), but it must be admitted that they do have an interest in promoting the methods they actually use.’ (Smith and McVie 2003: 178).

They found that having compared self-reports with reports from parents, teachers, peers and official records it was clear that respondents do reveal much of their offending, although it is more difficult to establish the extent to which these may be exaggerated. However, they also recognised that there is no alternative method of describing most offending and other measures (e.g. official statistics) are even more defective (Smith and McVie 2003). In order to provide an indicator of over-reporting of drug use a bogus drug ‘semeron’ was included in the list of drugs from sweeps 3 onwards. If respondents reported that they had taken the bogus drug⁶, their drug use responses were excluded from the analysis. Semeron was devised by the British Crime Survey and has been included in this and many other social surveys.

In addition to self-report measures, the Edinburgh study makes use of detailed records and information from other sources about young people e.g. school records, teachers, parents, the children’s Hearing system and the police. Measures from two sources can be combined, for example, in relation to parent-child relationships variables can be created from a combination of parents and children’s responses or cross-checked. The Edinburgh Study data shows that respondent’s own offending is highly correlated with the number of friends who are offenders (based on the account of the respondent). However, relying on the respondent for an assessment of their friends’ involvement in crime is a limitation because young people who have been involved in offending themselves are likely to be inclined to

⁶ Numbers who reported having used semeron (bogus drug) at each sweep were as follows: sweep 3 N=15; sweep 4 N=21; sweep 5 N=10; and sweep 6 N=12.

say that their friends have also done so. Therefore, the ability with Edinburgh Study data to look at the self-reported offending and drug use of friends named by cohort members is an important strength. Respondents were asked to name their three best friends (from their own school year) as part of self-completion questionnaires at sweeps 3 and 5. In the majority of cases this allowed for the identification of named best friends who were cohort members. Measures of friends' self-reported drug use and offending were therefore direct (rather than relying respondents' assessments of their friends' behaviour). Direct measures of the first named best friend's drug use and offending have been used in this doctoral research.

In itself the secondary analysis carried out as part of this thesis provides a valuable contribution towards answering the research aims as set out in chapter one. However, a limitation is that the individuals included in the analysis at each sweep vary slightly. The next step could have been to employ group based modelling techniques. These were not used due to the necessary software not being available, and the time restrictions of doctoral research. One way to take this research forward might be to employ group-based modelling techniques in looking at both drug use and offending trajectories over time. However, given that the value of such techniques has been debated (for example, see Sampson and Laub (2005) and Nagin and Tremblay (2005)), a decision would not be made about whether to use these methods or not without fully assessing the suitability of group-based trajectory modelling to developing these doctoral research findings further.

For the in-depth interviews, a topic guide was used in order to try and ensure that the same issues were covered with all interviewees, despite the flexible nature of the in-depth interview. As regards reliability, there is no way of ascertaining for certain if the same results would be provided if the research process were to be repeated, so details of how the research was undertaken have been given. As Kemp and Ellen (1984) point out, validity and reliability of informants' statements are influenced by factors such as: involuntary error; intentional error; the personality of the informant; the dynamics of the interview situation and cultural conventions. Clearly informants are susceptible to memory lapse and exaggeration and may be part real, part imaginary. Rapport building, reciprocity, and empathy are fundamental to the acquisition of good information and deep understanding (Schensul et al. 1999:

293). Truthfulness of information is connected to trust and rapport, which have already been discussed. What was important was to get an insight into how interviewees saw the reality of their situation rather than to find out the objective 'truth'. Therefore, information gained from in-depth interviews provided a valid measurement of their views. When one interviewee was asked if there was anything he would like to add, as the interview was coming to a close the reply was: 'that's me in a nutshell'.

Whilst it is remarkable to have access to self-report data for a large cohort of young people, the information provided by the Edinburgh Study on young people's drug use is limited to the extent that it only covers drug type and frequency of use. However, the use of qualitative research enabled a more detailed description of individuals' drug use and a deeper understanding of the explanations for drug use and the way it fits in with their lives. Another small drawback relates to how questions were asked changed at sweep 6 and as a result the measurements of frequency of use are different then as compared to earlier sweeps. However, the measure used at sweep 6 arguably provides a better picture of frequency of drug use as it asks whether drugs were used daily, weekly, monthly, less than monthly or not at all. The combination of methods enabled the cross-checking of information provided by young people via in-depth interviews with self-report questionnaire data. These self-reports largely matched up well. However, there were a couple of cases where this information was contradictory, notably two interviewees who claimed to have used heroin at sweep 6 but in in-depth interview said they had only tried cannabis and no other drugs.

CONCLUSION

Quantitative and qualitative methods employed during the course of this doctoral research were different elements forming part of a single research process. Mixed methods were employed for reasons of complementarity, expansion and development (Greene et al. 1989). There were elements of interaction between methods, for example: self-report questionnaire data was used in the selection of

interviewees; and findings from in-depth interviews aided the interpretation of findings from secondary analysis of questionnaire data. The use of both secondary data analysis and in-depth interviews have enabled this thesis to provide comprehensive explanations for drug use and offending and describe and understand how the two behaviours are related over the teenage years. The longitudinal nature of the research allowed for the exploration of the impact of drug use and offending on later involvement in the other behaviour. Various different research methods and findings were used together in order to reach the conclusion that drug use and offending can be explained in a similar way and are more closely linked earlier rather than later in the teenage years.

CHAPTER 4: CHANGES IN DRUG USE AND OFFENDING BETWEEN THE AGES OF 12 AND 17

INTRODUCTION

This chapter demonstrates how drug use and offending follow different patterns over the teenage years. As I will show, earlier on in the teenage years drug use is very rare yet offending is common. The prevalence of offending decreases after age 14, but the prevalence of drug use continues to increase up to age 17. In keeping with some elements of the literature reviewed earlier, findings suggest that the relationship between drug use and offending is stronger earlier (as opposed to later) in the teenage years. This chapter presents descriptive statistics on: prevalence, age of onset and co-occurrence of different types of substance use (section 1); prevalence and age of onset of drug use and offending (section 2); and the strength of the relationship between the two behaviours (section 3). In this chapter weights were applied for analyses relating to age 16 (sweep 5) and age 17 (sweep 6) in order to deal with the fact that the cases included vary between sweeps¹.

SECTION 1: PREVALENCE, AGE OF ONSET AND CO- OCCURRENCE OF THE USE OF DIFFERENT SUBSTANCES

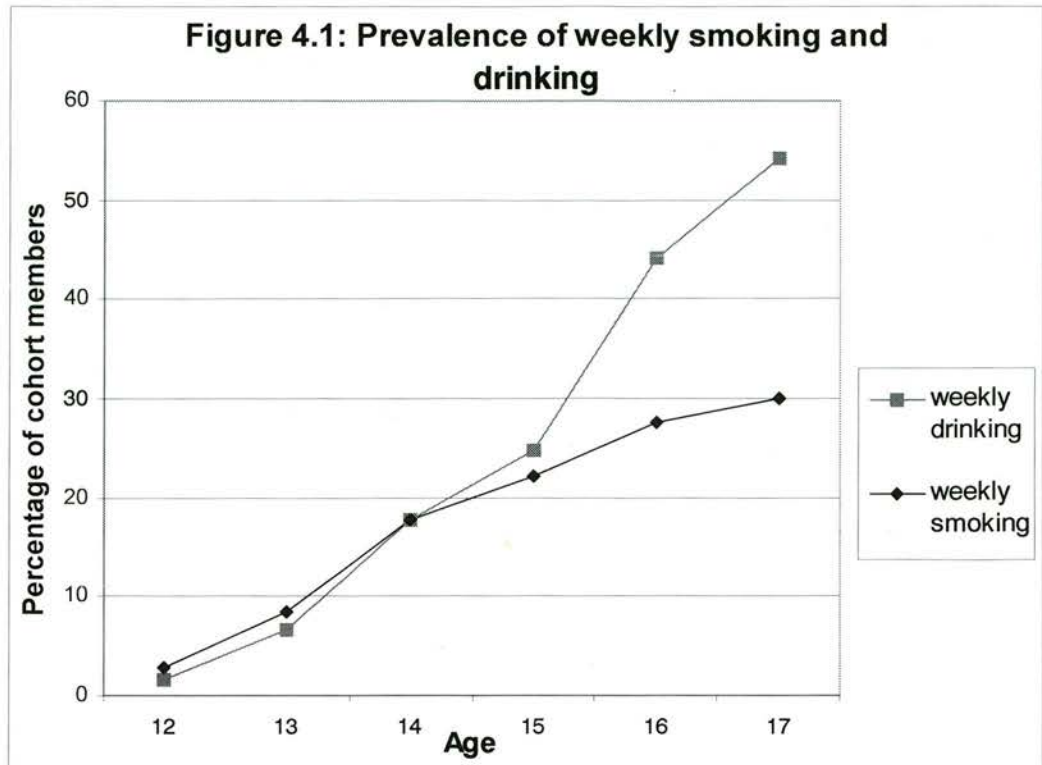
1.1 PREVALENCE OF SMOKING, DRINKING AND DRUG USE

Prevalence of self-reported weekly smoking and weekly alcohol use

The prevalence of weekly cigarette smoking² and weekly drinking increased as cohort members aged. After the age of 15, the prevalence of weekly drinking increased more dramatically than weekly smoking, as indicated in figure 4.1.

¹ There were a larger number of missing cases at the latter two sweeps. For further details on weighting and a discussion of missing data see chapter 3.

² Most self-reported cigarette smoking included here under 'weekly smoking' was daily smoking (see table in Appendix B1).



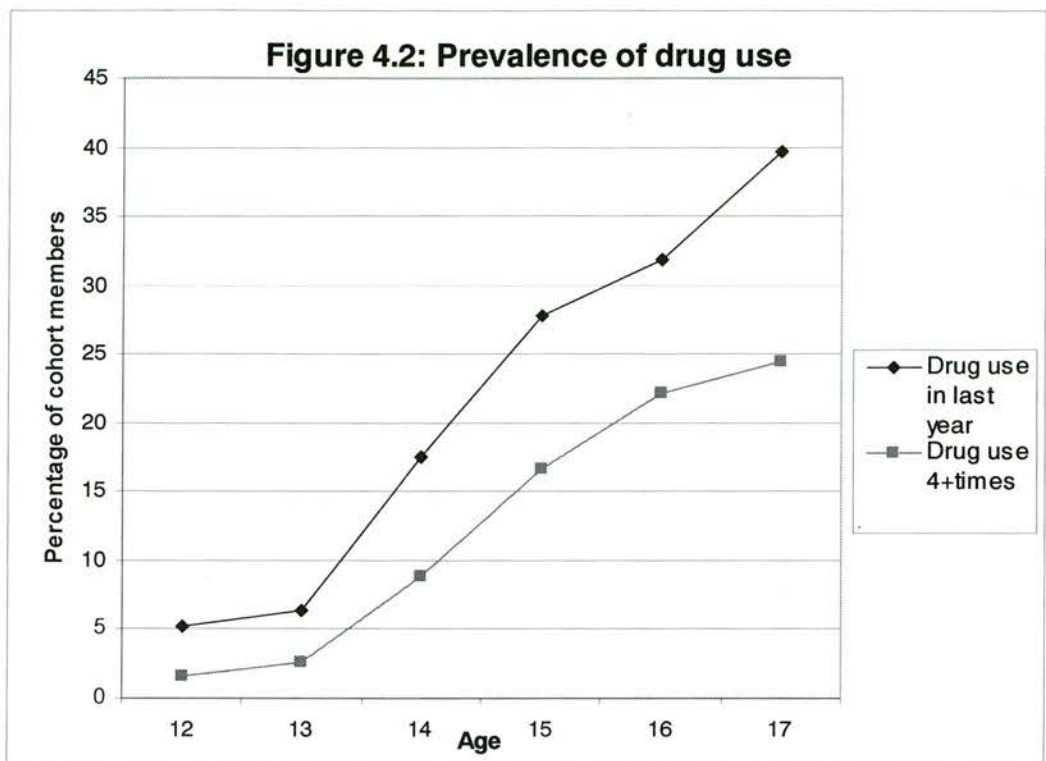
There was a bigger rise in drinking than smoking. From age 12 to 17 there was a thirty-fold increase in the percentage of cohort members who drank alcohol at least once a week. For weekly smoking there was a ten-fold increase over this period. At the age of 17 just over half (54%) of the cohort drank alcohol at least once a week whereas just under a third (30%) smoked cigarettes at least once a week. At this point it was still illegal for these young people to buy alcohol, yet a majority of the cohort drank alcohol on a regular basis. Over the teenage years, weekly drinking had changed from being a rare behaviour to being much more common.

Prevalence of self-reported drug use

Over the teenage years, the percentage of cohort members who had used drugs in the last year increased. Figure 4.2 shows the percentage of cohort members who had used drugs at least once in the last year and the percentage who had used drugs frequently in the last year. However, at age 17 the frequent use figure referred to drug use at least monthly rather than four or more times in the last year³. Drug use

³ From sweep 1 to sweep 5 young people were asked how often (never, once, two to three times or four or more times) they had tried a list of drugs in the last year (ever at sweep 1). At sweep 6 young people were asked how often (every day, at least once a week, at least once a month, less than once a month, or never) they had used a list of drugs during the last year. See Appendix A for more details.

included use of any of the following: glue or gas; cannabis; ecstasy; cocaine; speed; heroin; LSD; magic mushrooms; downers; poppers; or ‘something else’.



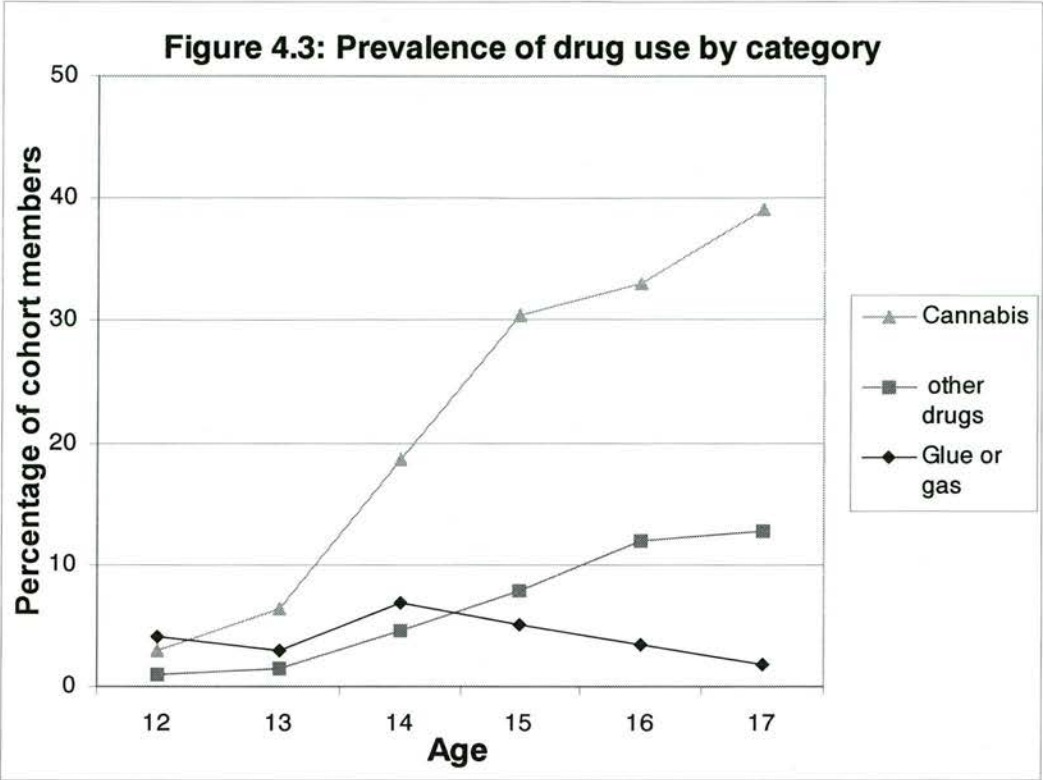
By age 17 the prevalence of drug use was almost eight times as high as it had been at age 12. The largest proportionate increase occurred between the ages of 13 and 14. At age 14 the prevalence of drug use in the last year was almost three times as high as it had been at age 13. The proportion of the cohort who had used drugs frequently also increased over the teenage years. There was a fifteen-fold increase in the prevalence of frequent drug use between age 12 and age 17. From the chart it appears that the increase in prevalence of frequent use between the ages of 16 and 17 was shallower than the increase for any drug use over this period. However, this is likely to be a product of the measure used, i.e. it is likely that the prevalence of frequent drug use figure at age 17 would have been higher if it had represented drug use four or more times rather than at least monthly.

At age 17, 40% of the cohort had used drugs in the last year and 24% of the cohort had used drugs at least twelve times in the last year. These prevalence findings for drug use broadly fit in with other research findings. However, findings do not tend to be directly comparable because of various methodological differences, for example they refer to different time periods or questions have been asked in a

different way. For example, A UK wide study of 15 and 16 year olds found that over 40% reported ever having tried a drug, with Scotland having the highest rates (Miller and Plant 1996). The closest comparison can be made between the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) data on the self-reported drug use of 15 year olds in Scotland in 2002 (Currie et al. 2003) and Edinburgh Study sweep 5 data referring to the period when the cohort were aged 15 to 16 years old in 2002. In 2002, at age 15 to 16, 32% of the Edinburgh Study cohort reported having used drugs in the last year. In 2002 a similar proportion (33%) of Scottish 15 year olds reported having used drugs in the last year according to SALSUS figures (Currie et al. 2003).

Prevalence of self-reported drug use by category

Figure 4.3 shows the percentage of cohort members who used the following 'categories' of drug in the last year: cannabis; glue or gas; or any other drugs. For the purposes of this analysis, other drug use refers to the use of drugs other than cannabis or solvents (glue or gas), i.e. ecstasy; cocaine; speed; heroin; LSD; magic mushrooms; downers; poppers; or 'something else'. Prevalence of use of glue and gas reached its peak at age 14 and thereafter declined. The proportion using cannabis increased rapidly between the ages of 13 and 14, and continued to increase with age thereafter. Use of drugs other than cannabis and solvents (glue and gas) also increased with age, though not as dramatically as cannabis use.

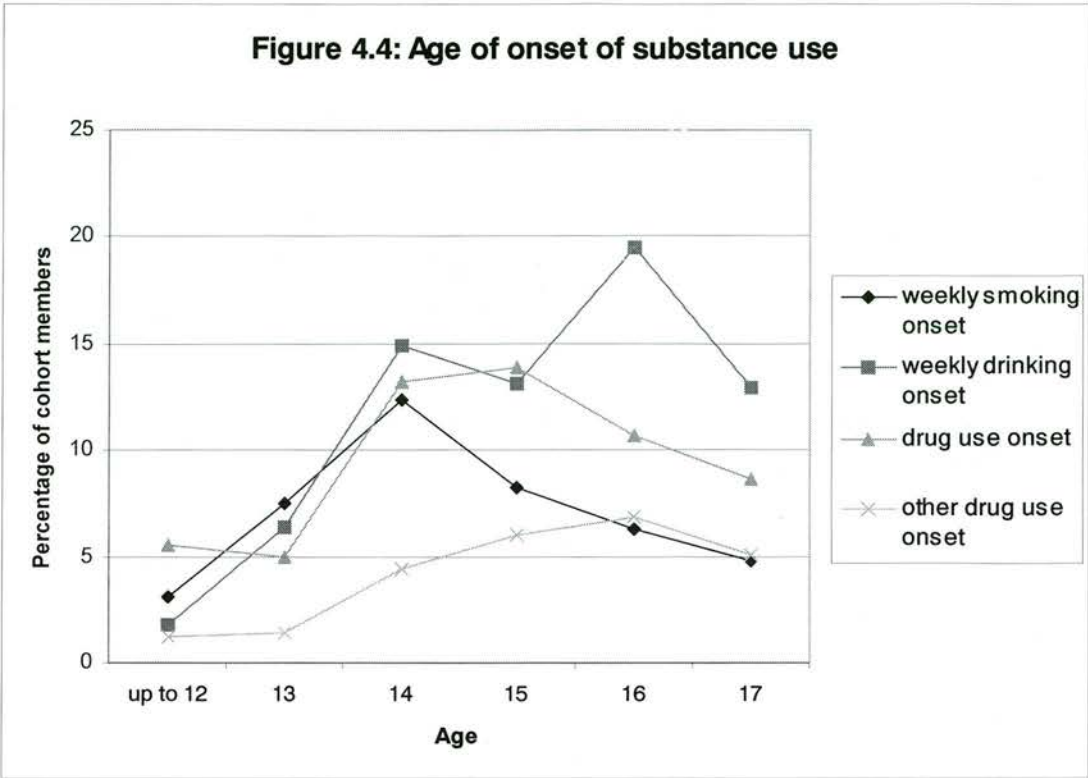


Young people were less likely to use glue or gas as they got older. Cannabis was much more widely used than other drugs, and nearly all drug users had used it. At age 17, 39% of the cohort had used cannabis in the last year and 13% had used other drugs. The prevalence of use of other drugs may continue to increase as cohort members age. Parker et al. (1998) found that drug prevalence increased into the early twenties and Pudney (2002) found that the average of first use was 17.5 years for heroin, 18.9 for ecstasy, and 20.2 for cocaine.

1.2 AGE OF ONSET OF SELF-REPORTED SUBSTANCE USE

The peak age of onset for different types of substance use varies. Figure 4.4 shows the percentage of cohort members who reported starting to use different types of substances (weekly smoking, weekly drinking, drug use and other drug use) at each age, up to 17⁴.

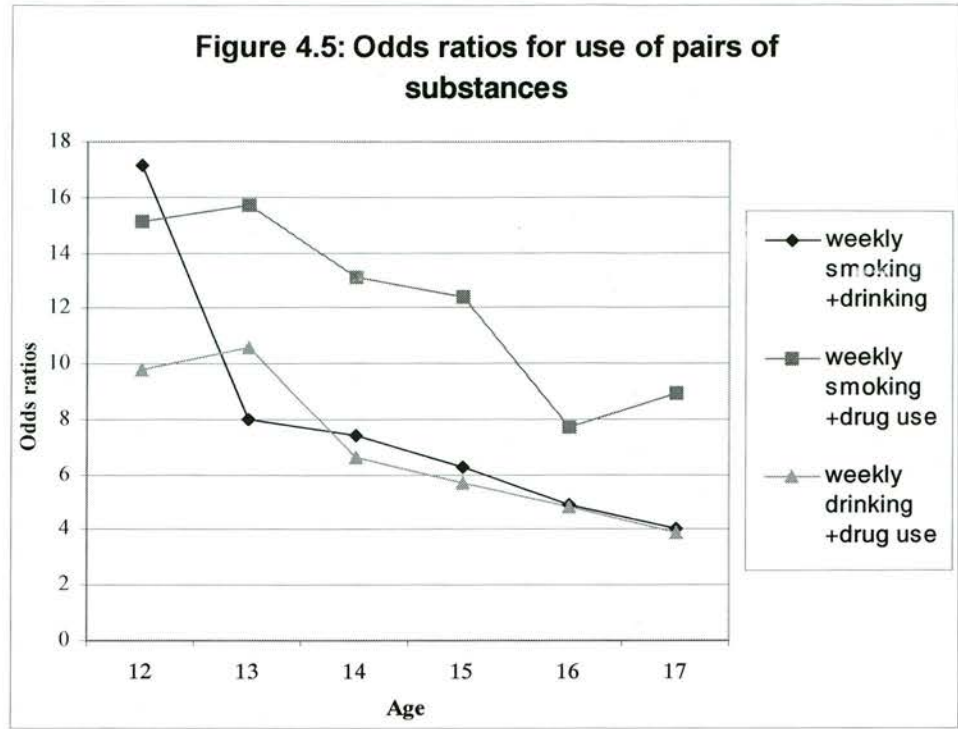
⁴ The percentages of cohort members who never reported such use were not shown in the figure. By age 17, 58% of cohort members had never smoked on a weekly basis, 32% had never drunk alcohol on a weekly basis, 43% had never taken drugs and 75% had never taken ‘other’ drugs.



The peak age of onset of weekly smoking was age 14 when 12% of all cohort members began smoking on a weekly basis. The peak age of onset for drug use was at age 15, when 14% of cohort members first took drugs. A slightly smaller percentage tried their first drug at the age of 14. The peak age of onset of weekly drinking was age 16, when 20% cohort members began drinking on a weekly basis. A sizeable portion of cohort members also began drinking on a weekly basis earlier, at age 14. The peak age of onset of other drug use was age 16 when 7% of cohort members first took other drugs. A slightly smaller proportion first took other drugs at ages 15 and 17.

1.3 CONTEMPORANEOUS LINKAGES BETWEEN THE USE OF DIFFERENT SUBSTANCES

This section looks at the links between the self-reported use of different substances (weekly smoking, weekly drinking, drug use in last year) over the teenage years. The contemporaneous links between use of substances were strongest when cohort members were younger (age 12 and 13), and decreased as they grew older, as shown in figure 4.5.



Odds ratios are used here to indicate the strength of the relationship between the use of two substances at each age. An odds ratio is the ratio of the odds of an event occurring in one group to the odds of it occurring in another group. For example, 17.1 is the ratio of the odds of a weekly smoker drinking weekly, to the odds of a non-weekly smoker drinking weekly at age 12. The odds that those who engaged one of these behaviours (weekly drinking or weekly smoking) at age 12 engaged in the other behaviour at the same age were 17.1 times the odds that those who did not engage in one of these behaviours (weekly drinking or weekly smoking) engaged in the other behaviour.⁵

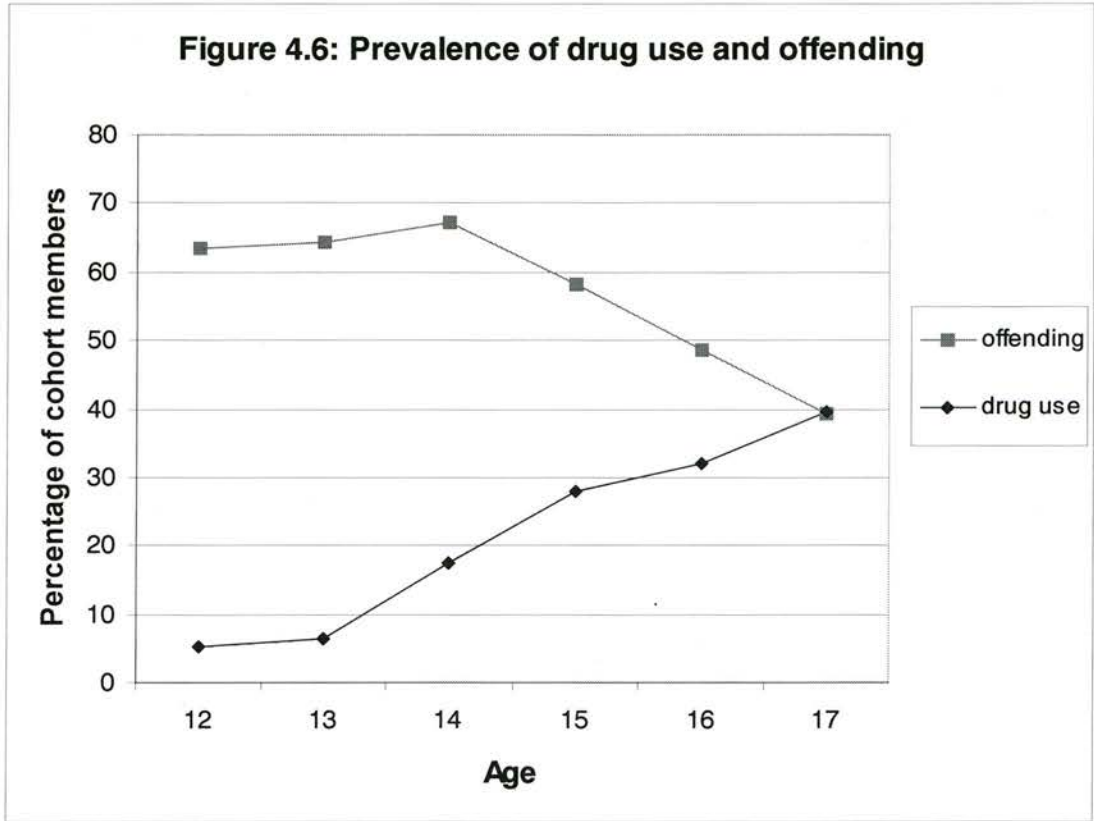
Relationships between weekly smoking, weekly drinking and drug use were stronger when substance use was rarer and relationships became weaker as the cohort members grew older and substance use became more common. The strength of the relationship between weekly smoking and drug use was generally the strongest. This was probably due to the fact that cannabis (which is usually smoked) was the most commonly used drug.

⁵ For an explanation of how these odds ratios were calculated see Appendix B1

SECTION 2: PREVALENCE AND AGE OF ONSET OF SELF-REPORTED DRUG USE AND OFFENDING

2.1 PREVALENCE OF DRUG USE AND OFFENDING

The prevalence of broad offending for the cohort decreases after age 14. In contrast, the prevalence of drug use continues to increase up to age 17. Figure 4.6 illustrates the contrast between the change in prevalence of self-reported broad offending⁶ and drug use with age.



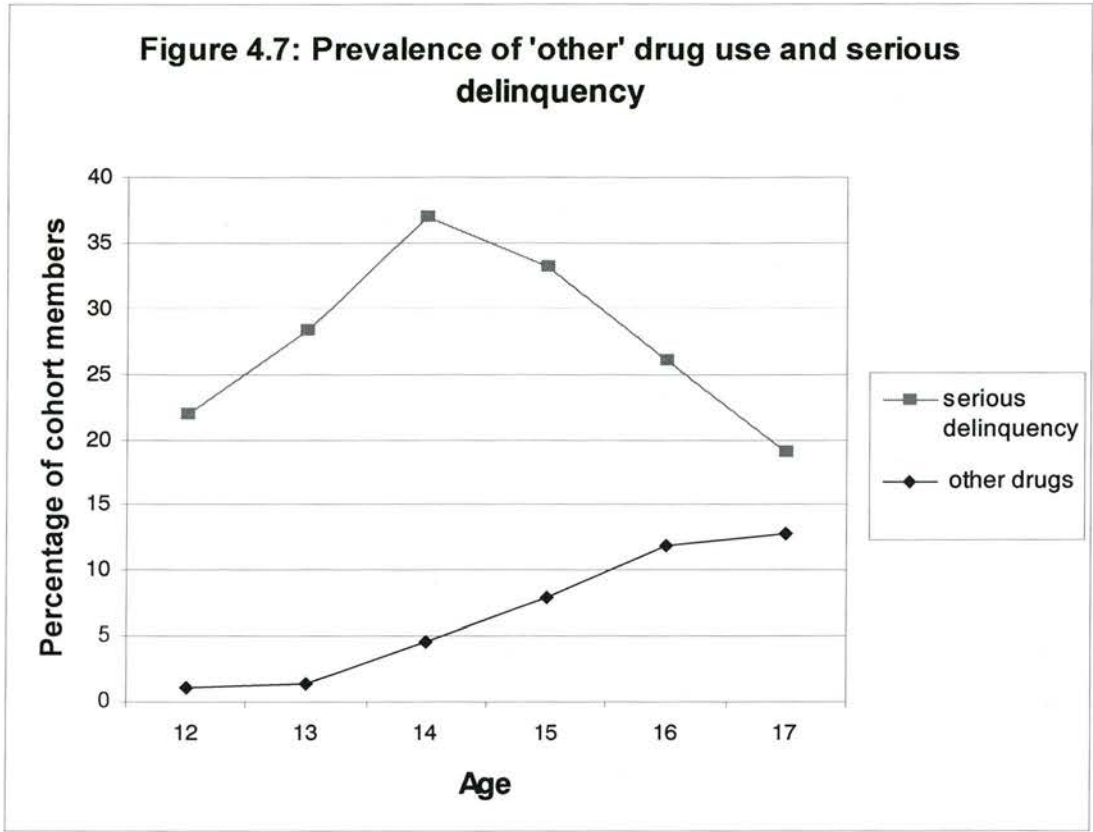
By age 17, a slightly higher percentage of cohort members had used drugs in the last year than had offended, whereas at earlier ages, offending was far more prevalent than drug use. The differences in patterns of prevalence of drug use and offending over time suggest that they may represent distinct behaviours and be explained in

⁶ The prevalence of self-reported broad offending measures used here included 10 items at age 12 and 11 items from age 13 to 17. This was in order that they were as comparable as possible over this time period. If a measure of offending which included all items of self-reported offending collected at each sweep had been used the pattern may have reflected the number of items measured rather than the change in prevalence of offending. Items included: shoplifting; being noisy or cheeky in public; joyriding; carrying a weapon; damage to property; housebreaking; robbery (theft with force or threats); fire-raising; assault; car-breaking; and hurting or injuring animals (not included at sweep 1).

different ways. However, it could be that they are both manifestations of the same behaviour.

Prevalence of other drug use and serious offending

Similarly, the proportion who had engaged in serious offending⁷ also increased up to age 14 and decreased thereafter, whereas the proportion who had used other drugs continued to increase up to age 17 (see figure 4.7).



The prevalence of broad offending and prevalence of engagement in serious offending were both lower at age 17 than they were at age 12. This reduction in prevalence of offending contrasts with figures presented thus far which have shown how substance use increased as cohort members aged.

Prevalence for each type of offending was examined over the teenage years in order to see whether there were any types of offending that had a similar pattern to drug use. Results, presented in Appendix B1 confirm that offending peaks during the

⁷ Items included in this measure of serious offending were: fire-raising; damaging property; housebreaking; robbery (theft with force or threats); car breaking; joyriding; or carrying a weapon.

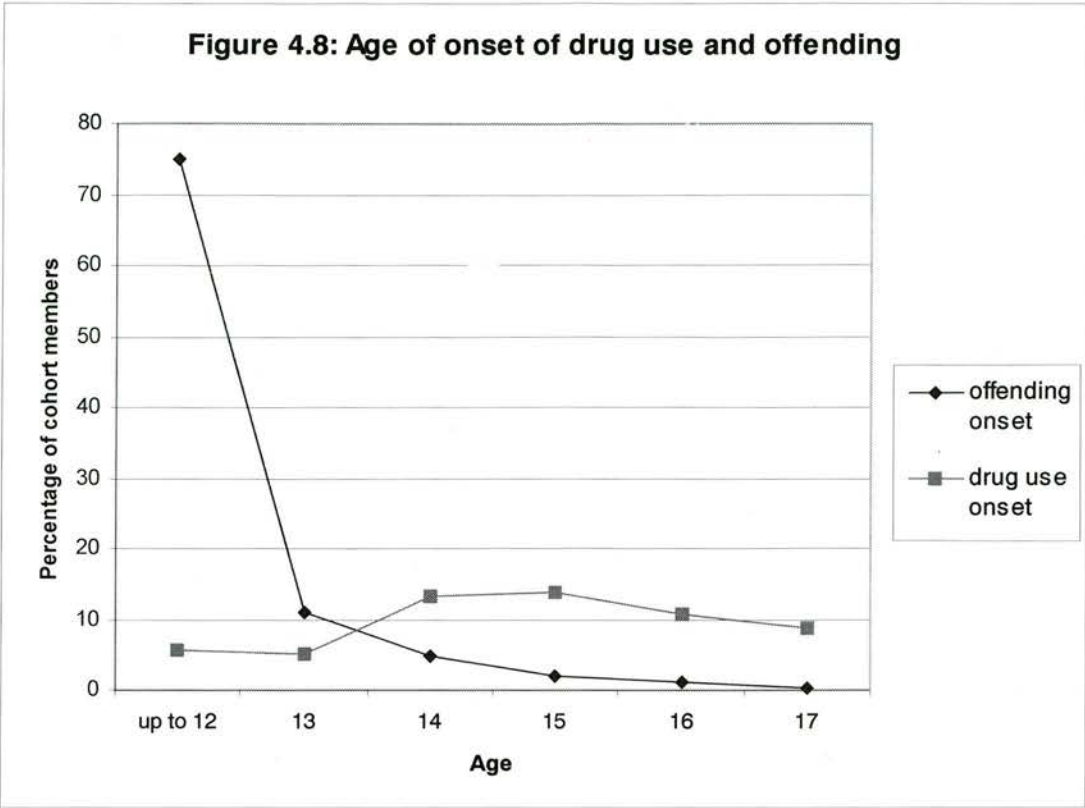
mid-teens and decreases thereafter, whereas the prevalence of involvement in drug use and other drug use continues to increase up to age 17. The prevalence of assault peaked at age 12 and shoplifting peaked at age 12 and 14. The prevalence of being noisy or cheeky in public peaked at age 14, as did damaging property, carrying a weapon and fire-raising. The prevalence of robbery, housebreaking, joyriding and car-breaking peaked at age 15. Results show that aggregate patterns of prevalence of offending and drug use over the teenage years are quite different.

2.2 AGE OF ONSET OF DRUG USE AND OFFENDING

The age of onset of self-reported offending peaked much earlier than it did for drug use. The peak age of onset of any broad self-reported offending⁸ for the cohort was age 12 or younger. Three quarters of all cohort members reported that they had 'ever' offended by age 12. As figure 4.8 shows, a smaller and smaller proportion of cohort members initiated offending from age 13 onwards. In contrast, the peak age of onset for drug use was at age 15, with 14% of cohort members first having taken drugs then⁹.

⁸ The age of onset of offending variable was created using offending measures which included all offending items (excluding truancy) that were measured at each sweep (14 items at age 12, 15 at age 13, 17 at ages 14, 15 and 17, and 16 at age 16). For full details of the make-up of variables see Appendix A.

⁹ Figure 4.8 does not show the percentage of cohort members who had never engaged in these behaviours up to age 17. By age 17, only 6% of cohort members had never offended whilst 43% had never taken drugs.



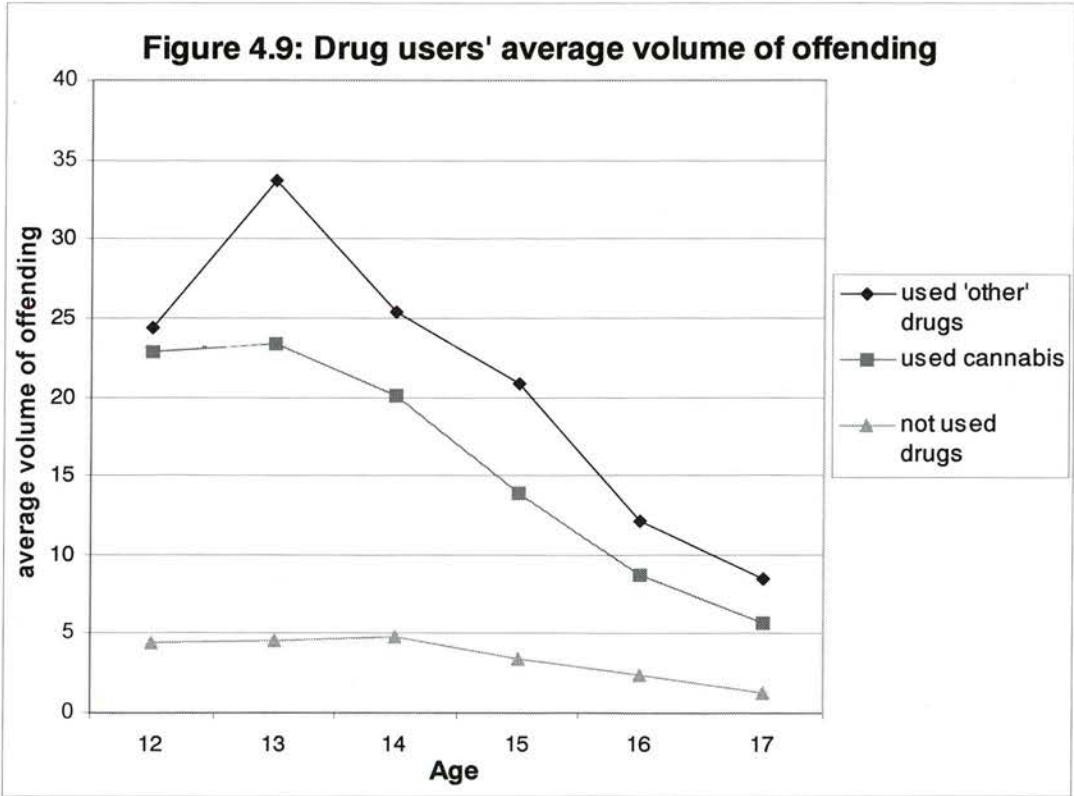
For the cohort as a whole, the peak age of onset of offending came before the peak age of onset of drug use.

It may have been that age of onset of offending shown here peaked at such a young age because some of the included types of offending are particularly ‘juvenile’ or petty. The peak age of onset for different types of offending were looked at in order to explore whether there are other forms of offending which share a peak age of onset with drug use. These results are presented in Appendix B1. Results showed that the peak age of onset for any serious offending was also age 12. Looking at individual types of offences, the peak age of onset for assault; shoplifting; being noisy or cheeky in public; damaging property; carrying a weapon; robbery and housebreaking were all age 12. The peak age of onset for fire-raising was age 13, and for joyriding and car breaking was age 14. By way of comparison, the peak age of onset for drug use was age 15 and for other drug use was age 16. For the cohort as a whole the peak age of onset of involvement in offending, even for serious types of offences, comes before the peak age of onset of drug use.

SECTION 3: STRENGTH OF RELATIONSHIP BETWEEN SELF-REPORTED DRUG USE AND OFFENDING

3.1 DRUG USERS' INVOLVEMENT IN OFFENDING

On average, drug users had offended more in the last year than non-users and differences were greatest earlier on in the teenage years. The highest average volume of offending values and largest contrasts between drug user and non-user categories were found at age 13. Figure 4.9 shows the average volume of self-reported offending for cohort members who had used other drugs, those who had used cannabis and those who had not used drugs in the last year. The figure illustrates how the average volume of self-reported offending for these groups¹⁰ changed with age, from 12 to 17 years. Complete results are presented in a table in Appendix B1, which shows a number of independent two-way classifications, the aim being to contrast those who fall into a particular category of drug use with those who do not fall into that category.



¹⁰ These are not mutually exclusive categories, i.e. the other drug users had mostly also used cannabis.

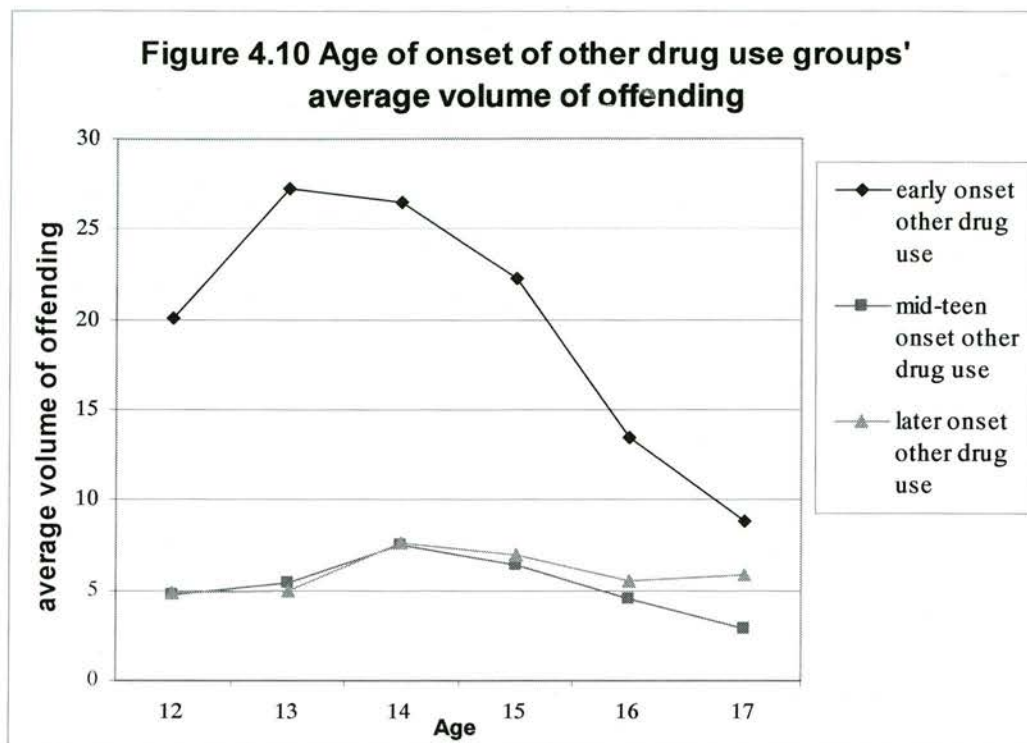
The mean volume of self-reported (broad) offending¹¹ was highest for those who had used other drugs in the last year. At age 13 the average volume of offending score for those who had used other drugs in the last year was 6.6 times higher than it was for those who had not used other drugs. At age 17 the average volume of offending score for those who had used other drugs in the last year was 4.3 times higher than it was for those who had not used other drugs.

The average volume of offending for the cohort as a whole decreased from age 14 (see Appendix B1) in a similar manner as the prevalence of offending did (see findings presented earlier in figure 4.6). For the cohort as a whole the average volume of self-reported offending was 1.9 times higher at age 13 than it was at age 17. Whereas, looking at those who had used other drugs, the average volume of offending score was four times higher at age 13 than it was at age 17. So those who used other drugs at age 13 were involved in more offending on average than those who used other drugs at age 17 and this difference did not seem to have been accounted for purely by the general decrease in average volume of offending for the cohort as a whole. This suggests that the use of other drugs earlier on in the teenage years was more closely related to offending than use of other drugs later in the teenage years.

So, the volume of offending amongst drug users is highest at the earlier stages. However, it is difficult to interpret figure 4.9 further, because those included at each time point are a different set of individuals. It is likely that drug users reduce their offending over time and that there is an increase in the population of drug users (who offend at a low level). In order to begin to explore these possibilities, the average volume of offending was compared for cohort members who began using other drugs at different ages. These groups were: early onset other drug users (those who first started using other drugs at age 13 or younger); mid-teen onset other drug users (first started using other drugs between the ages of 14 and 16); and later onset

¹¹ In order that patterns over the teenage years were comparable the average volume of self-reported offending variables used here included 10 items at age 12 and 11 items from age 13-17. Items included: shoplifting; being noisy or cheeky in public; joyriding; carrying a weapon; damage to property; housebreaking; robbery (theft with force or threats); fire-raising; assault; car-breaking; and hurting or injuring animals (not included at sweep 1). Incidentally these analyses were also run using offending variables with 14-15 items and also using variables with all offending items measured at each sweep (14 at age 12, 15 at age 13, 17, at ages 14, 15 and 17, and 16 at age 16). The patterns remained very similar regardless of which offending variables were used.

other drug users (first started using other drugs at age 17). Findings presented in figure 4.10 below show that early onset other drug users' average volume of offending was three times higher at age 13 than it was at age 17.



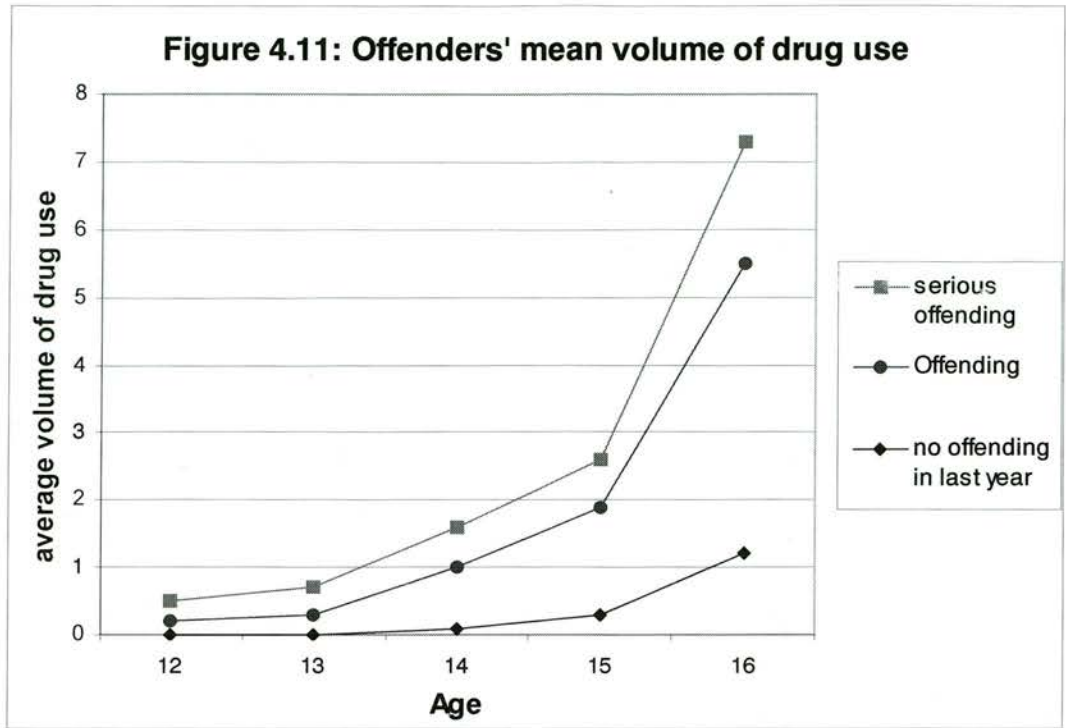
Mid-teen and later onset other drug users' average volume of offending was lower than that of the early onset group.

3.2 OFFENDERS' DRUG USE INVOLVEMENT

On average, offenders had used drugs more often than non-offenders. Figure 4.11 shows the average volume of drug use for those who had engaged in serious offending, those who had engaged in broad offending and those who had not offended in the last year¹². The figure illustrates how the average volume of drug use for these groups changed with age, from 12 to 16 years.¹³

¹² Binary variables (involvement in offending or not) used here and in sections 3.3 and 3.4 refer to 10 items at age 12 and 11 items from age 13 to 17.

¹³ The mean volume of drug use figures at age 17 are not shown in figure 4.17 because it was estimated on a different basis at sweep 6. Young people were asked how often they had tried any of the following drugs in the last year (ever at sweep 1). From sweep 1-5 the options were: never, once, two to three times or four or more times. At sweep 6 the options were: every day, at least once a week, at least once a month, less than once a month, or never. As it was computed on a different basis, the average volume of drug use for the cohort as a whole was far higher at age 17 than at the other sweeps (see Appendix A) and therefore the age 17 figures are not included here in figure 4.17.



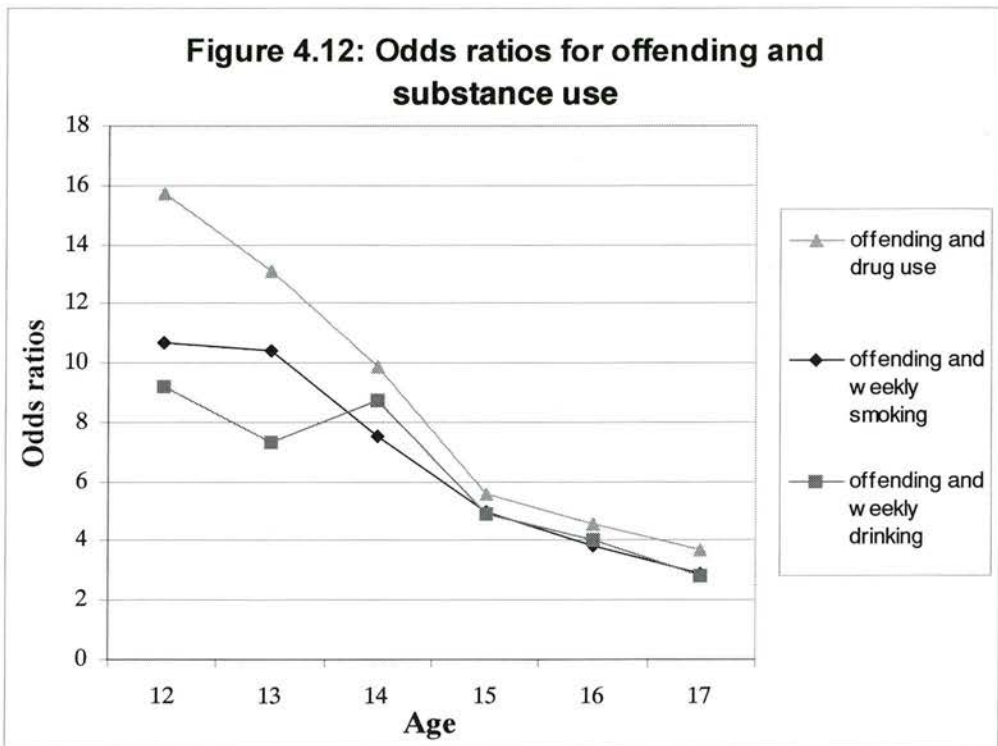
Complete results are presented in a table in Appendix B1, which shows a number of independent two-way classifications, the aim being to contrast those who fall into a particular category of offending with those who do not fall into that category. The mean volume of self-reported drug use was highest for those who had engaged in serious offending.

The average volume of drug use for the cohort as a whole increased as cohort members aged (see Appendix B1) in a similar way as the prevalence of drug use increased (see earlier findings presented in figure 4.6). For the cohort as a whole, the average volume of drug use at age 17 was 168 times as higher than had been at age 12. For those who engaged in serious offending the average volume of drug use at age 17 was 181 times as high as it had been at age 12. So differences in levels of drug use at age 17 compared to age 12 for serious offenders are broadly similar to those for cohort as a whole. This suggests that later (as compared to earlier) in the teens serious offenders do not use drugs more than might have been expected by the general trend towards increased volume of drug use. In fact, at age 13 the average volume of drug use was seven times as high for serious offenders compared with those who did not offend seriously. At age 17 the average volume of drug use was

4.3 times as high for serious offenders compared with those who did not offend seriously. Differences in levels of drug use between those who had engaged in serious offending and those who had not were greater earlier on in the teenage years. This suggests that drug use and serious offending were more related earlier rather than later.

3.3 ODDS RATIOS FOR SELF-REPORTED SUBSTANCE USE AND OFFENDING

This section looks at the links between self-reported substance use (weekly smoking, weekly drinking and drug use in the last year) and offending over the teenage years. Figure 4.12 shows that the links between substance use and offending are stronger earlier on in the teenage years, as compared to later.



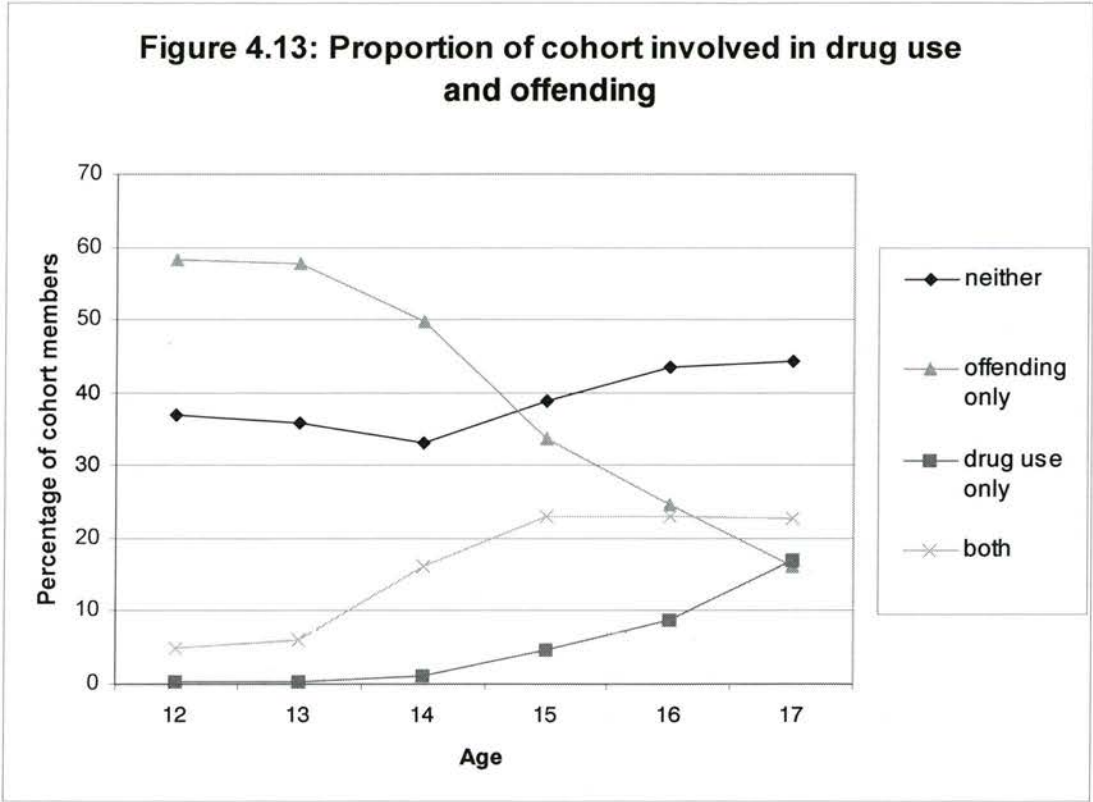
As explained at figure 4.5, odds ratios are used here to indicate the strength of the relationship between two behaviours at each age. For example, 15.7 is ratio of the odds of an offender using drugs to the odds of a non-offender using drugs at age 12¹⁴. The odds that those who engaged in one of these behaviours (offending or drug use)

¹⁴ For an explanation of how odds ratios were calculated see the example relating to section 1.3 of this chapter, which is outlined in Appendix B1.

at age 12 engaged in the other behaviour at the same age were 15.7 times the odds that those who did not engage in one of these behaviours (offending or drug use) engaged in the other behaviour. The relationship between drug use and offending appeared to be particularly strong earlier in the teenage years.

3.4 CO-OCCURRENCE OF SELF-REPORTED DRUG USE AND OFFENDING

Self-reported drug use and offending are associated. However, they are not inevitably linked, i.e. one of the behaviours can and does exist without the other. Figure 4.13 shows the proportion of the cohort at each sweep who self-reported any drug use and or offending in the last year.



To a large extent the pattern reflects the fact that the proportion of the cohort who had used drugs in the last year increased as the cohort aged, whilst the proportion who had offended in the last year decreased (see findings presented earlier in figure 4.6). At age 12 the majority of cohort members offended (but did not use drugs), but the proportion in this group had decreased dramatically by age 17. From age 12 to 14 only a tiny proportion of cohort members used drugs (but did not offend), but by age

17 a more substantial proportion of the cohort had used drugs (not offended) in the last year. At age 17, one third of the cohort had engaged in one of these behaviours (drug use or offending) without the other in the last year.

Cross tabulations have also been used in order to look at whether young people who engaged in drug use and serious offending early on in the teenage years continued to do so later on. Results presented in table 4.1 below show there is change as well as continuity in behaviour.

Table 4.1 Drug use and serious offending age 12 and 17

Percentage of cohort members	neither age 17	drug use age 17	serious offending age 17	both age 17
Neither age 12	61	27	4	8
Drug use age 12	41	41	2	17
Serious offending age 12	41	26	12	21
Both age 12	29	33	7	32

Of the cohort members who were involved in both drug use and serious offending at age 12: almost one third of them were involved in neither at age 17; almost one third were involved in drug use only; almost one third were involved in both; and only a very small percentage of them were involved in serious offending only at age 17.

Equal proportions of the young people who had been involved in drug use and serious offending at an early age had continued to be involved in both, continued to use drugs but stopped serious offending, or ceased to be involved in either of them in the last year at age 17. So, almost two thirds of those who used drugs and engaged in serious offending at age 12 had stopped engaging in serious offending at age 17.

Almost half of those who engaged in serious offending only at age 12 had used drugs in the last year at age 17. Of those who had been involved in neither at age 12, one third had used drugs in the last year at age 17. These figures reflect the general decrease in prevalence of offending and increase in prevalence of drug use over the teenage years.

SUMMARY AND CONCLUSIONS

Between the ages of 12 and 17 drug use and offending follow very different patterns. Whilst offending is common early on and decreases in prevalence over the teenage years, drug use is very rare earlier on and continues to increase over this period. In a similar manner, the average volume of offending for the cohort as a whole decreases over the teens yet the average volume of drug use increases. The peak age of onset for offending comes earlier than it does for drug use. In order to begin to explore whether this suggests that drug use and offending represent distinct behaviours or not, multivariate analyses are undertaken in chapters five and six.

The links between drug use and offending are stronger earlier rather than later in the teenage years. Other drug use is more related to offending earlier in the teens than it is later. This is the case both because early onset other drug users decrease their offending over time and because those who begin using other drugs later in the teens have a lower average volume of offending than the early onset group. Also, drug use and serious offending are more related earlier in the teens. Findings have shown that later in the teens a number of young people engage in drug use without offending. Also, there is change as well as continuity in involvement in these behaviours over the teenage years. Further analysis is required in order to look in more detail at how drug use and offending are related and how this changes over the teenage years. The next two chapters will take findings from this chapter forward and look at the relationship of drug use and offending to a set of explanatory factors.

CHAPTER 5: EXPLANATORY FACTORS AND DRUG USE AND OFFENDING

INTRODUCTION

This chapter follows on from findings in the previous chapter and takes the analysis forward by beginning to explore possible relationships between a set of explanatory factors and drug use and offending. We have seen that drug use and offending follow different patterns over the teenage years and now we can look at whether explanatory variables are similarly related to drug use and offending over this period. These variables¹ and the theoretical approach behind them were outlined in chapter three. Findings are presented here by domain: socio-demography; informal social controls; deviant peer group context; and deviant activity. Relationships between volume of drug use and volume of offending and continuous variables (for example parent-child conflict score) are investigated by calculating correlation scores. For binary variables the average volume of drug use and average volume of offending for these groups (for example male versus female) are compared. Weights were applied for analyses relating to age 16 (sweep 5) and age 17 (sweep 6) because there were a larger number of missing cases at these two sweeps.

The relationship between explanatory variables and drug use and offending at the ages of 13, 15 and 16 are considered here. Ages 13 and 16 were chosen in order to provide a comparison between earlier and later points in the teenage years and age 15 factors are investigated because they too will be used as explanatory variables (in lagged regression models explaining age 17 drug use and offending) in chapter six. The purpose of this chapter is to investigate whether each of the variables are related to volume of drug use and volume of offending at different points over the teenage years. This is done in preparation for multivariate regression analyses, which will be used to explain drug use and offending in the next chapter. As I will demonstrate in this chapter the set of variables tended to be related to drug use offending in a similar

¹ For full details of the make-up of variables see Appendix A

manner, but there were some interesting differences, particularly relating to gender and social class.

SECTION 1: SOCIO-DEMOGRAPHY

Some socio-demographic factors are differently related to drug use and offending. Many of the socio-demographic group differences for average volume of drug use are not statistically significant. Differences in average volume of drug use (and average volume of offending) are compared by socio-demographic groupings at age 13, 15 and 16 and results are presented in table 5.1 below.

Table 5.1 Average volume of drug use and average volume of offending by socio-demographic groups

	Age 13		Age 15		Age 16	
	Mean volume of drug use	Mean volume of offending	Mean volume of drug use	Mean volume of offending	Mean volume of drug use	Mean volume of offending
Male	0.3	10.8	NS	13.5	NS	9.3
Female	0.1	7.0	NS	8.5	NS	5.1
Manual/unemployed ses	NS	10.1	NS	12.4	NS	7.8*
Non-manual ses	NS	7.5	NS	9.4	NS	6.5
Not living with two parents	0.3	11.4	1.8	14.2	4.3	9.1
Two parents	0.2	7.8	0.9	9.1	2.4	6.0

Unless stated differences between groups are significant at $p < .001$

* differences significant at $p < .05$

NS non-significant at $p < .05$

As indicated in table 5.1, there are important gender differences in the relationships between gender, drug use and offending. Being male is related to drug use at age 13, but gender differences in drug use at ages 15 and 16 are not statistically significant. By contrast, being male is related to volume of offending at *all* points in time. It is interesting to note the lack of relationship between gender and drug use later in the

teens. The relationship between gender and prevalence of substance use is explored further in Appendix B2².

Table 5.1 also shows that there are important differences in respect of socio-economic status. Interestingly, the average volume of drug use of those from manual (or unemployed) socio-economic status background compared to non-manual socio-economic status background is not statistically significant. However, those from manual or unemployed socio-economic status backgrounds have slightly higher average volume of offending scores than those from non-manual socio-economic status families.

Family structure is related to both drug use and offending. Cohort members who were not living with both parents have higher average volume of drug use and higher average volume of offending scores than those who were living with two parents. However, neighbourhood deprivation was not related to either drug use or offending. As figure 5.2 shows, neighbourhood deprivation score is not correlated with volume of drug use or volume of offending at ages 13, 15 or 16. As a result neighbourhood deprivation score is not employed in any further analyses.

Table 5.2 Correlations (Spearman's rho) between neighbourhood deprivation and volume of drug use and volume of offending

	Age 13		Age 15		Age 16	
	volume of drug use	volume of offending	volume of drug use	volume of offending	volume of drug use	volume of offending
Neighbourhood deprivation score	NS	NS	NS	NS	NS	NS

NS non-significant at $p < .05$

² For example, these analyses show that at age 13 males were almost twice as likely as females to have used drugs in the last year but the differences between the proportion of male and female cohort members who had taken drugs in the last year at the ages of 14, 15, 16, and 17 were not statistically significant.

SECTION 2: LOW INFORMAL SOCIAL CONTROL

Findings show that informal social control variables are related to both drug use and offending, though relationships are stronger for offending. Correlation scores for continuous informal social control variables and volume of drug use and volume of offending are presented in table 5.3 below. These are non-parametric correlation coefficients (Spearman’s rho).

Table 5.3 Correlations (Spearman's rho) between continuous informal social control variables and volume of drug use and volume of offending

	Age 13		Age 15		Age 16	
	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending
Low parental monitoring	.195	.467	.341	.484	.302	.436
Parent-child conflict	.178	.394	.212	.351	.172	.259
Stressful life events age 14	.053	.142	.101	.144	.055	.063
Bad relationship with teachers	.213	.473	.290	.440	.270	.383
Low importance of school	.166	.348	.139	.282	.101	.214
Moral beliefs accepting of offending	.193	.448	.293	.565	.239	.441

All correlations are significant at $p < .01$

Although all of the correlations are statistically significant, the above table shows that these variables are more strongly correlated with volume of offending than volume of drug use. Moral beliefs accepting of offending score, low parental monitoring score and bad relationships with teachers score are relatively strongly correlated with volume of offending. The highest correlation for volume of drug use is the relationship to parental monitoring at age 15 and even this was only a moderate

correlation. Again, correlations between parent-child conflict score and volume of drug use are weaker than they are for offending. Experiencing more stressful life events is weakly associated with volume of drug use and volume of offending. Having bad relationships with teachers is more correlated with drug use and offending than seeing school as less important, and again relationships are stronger for volume of offending than they are for drug use. The correlation between having moral beliefs accepting of offending and volume of offending is particularly powerful. The highest correlations for each of the variables with volume of drug use tend to be found at age 15 whilst the highest correlations for volume of offending are found at age 13 or age 15. The weakest correlations for volume of drug use are found at age 13 or 16 and for volume of offending at age 16.

SECTION 3: DEVIANT PEER GROUP CONTEXT

Findings presented in table 5.4 below regarding the relationship of deviant peer group context variables to volume of drug use and volume of offending indicate some similarities, though there are key differences that distinguish between the groups.

Table 5.4 Average volume of drug use and average volume of offending by deviant peer group context groups

	Age 13			Age 15			Age 16	
	Mean volume of drug use	Mean volume of offending		Mean volume of drug use	Mean volume of offending		Mean volume of drug use	Mean volume of offending
Gang member	0.6	18.2		2.1	18.9		5.2	17.9
not gang member	0.1	6.6		1.0	8.9		2.8	5.5
Named best friend used drugs	0.5	15.6		2.4	13.5		5.4	8.6
nbf did not use drugs	0.2	7.9		0.5	7.1		1.5	5.2

Unless stated differences between groups are significant at $p < .001$

* significant at $p < .05$

NS non-significant at $p < .05$

Gang members have higher average volume of offending and average volume of drug use scores than non-gang members. Interestingly, the difference in average volume of drug use between gang members and non-gang members narrowed from age 13 to age 16. Those whose named best friend had used drugs had higher average volume of drug use and higher average volume of offending scores than those whose best friend had not self-reported having used drugs in the last year. It is interesting that named best friend's drug use is related to offending as well as drug use.

Correlations between volume of drug use and volume of offending and deviant peer group context variables are show in table 5.5 below.

Table 5.5 Correlations (Spearman's rho) between continuous deviant peer group context variables and volume of drug use and volume of offending

	Age 13		Age 15		Age 16	
	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending
Named best friend's volume of offending	.121	.325	.251	.326	.204	.229
Hanging around	.136	.373	.203	.361	.137	.311

All correlations are significant at $p < .01$

Volume of drug use is associated with named best friend's volume of offending. However, unsurprisingly correlations between named best friend's volume of offending and own volume of offending are stronger. Hanging around is associated with drug use, but again more strongly correlated with offending.

SECTION 4: DEVIANT ACTIVITY

Regular drinking and smoking are, as expected, more strongly related to drug use than offending. Findings presented in table 5.6 below compare average volume of drug use and average volume of offending for weekly smokers and drinkers.

Table 5.6 Average volume of drug use and average volume of offending by deviant activity groups

	Age 13		Age 15		Age 16	
	Mean volume of drug use	Mean volume of offending	Mean volume of drug use	Mean volume of offending	Mean volume of drug use	Mean volume of offending
Weekly smoker	1.4	25.7	3.9	23.2	8.5	13.9
Not weekly smoker	0.1	7.3	0.5	7.6	1.4	4.8
Weekly drinker	1.5	26.4	3.0	23.2	5.5	11.5
Not weekly drinker	0.1	7.7	0.7	7.2	1.3	4.0

Unless stated differences between groups are significant at $p < .001$

* significant at $p < .05$

NS non-significant at $p < .05$

Weekly smokers on average engage in more drug use and offending than those who do not smoke regularly. Similarly, weekly drinkers engage in more drug use and offending than non-weekly drinkers. The gap between the average volume of drug use of weekly smokers and non-weekly smokers narrowed from age 13 to age 16. This is because regular smoking and drinking, like drug use is much more deviant earlier on in the teenage years.

Although the relationship between drug use and offending has already been explored in the preceding chapter, correlations between volume of drug use and volume of offending are presented below in table 5.7. Volume of drug use and volume of offending are moderately associated, with the strongest correlation being found at age 15. At this point in time the cohort's involvement offending was still high (though it had begun to decline) and involvement in drug use was increasing.

Table 5.7 Correlations (Spearman's rho) between continuous deviant activity variables and volume of drug use and volume of offending

	Age 13		Age 15		Age 16	
	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending	Volume of drug use	Volume of offending
Volume of offending	.329	NA	.452	NA	.412	NA
Volume of drug use	NA	.329	NA	.452	NA	.412

All correlations are significant at $p < .01$

SUMMARY AND CONCLUSION

Findings suggest that there is generally a degree of similarity in the set of factors which are related to drug use and offending. However, as has been shown there are also important differences. Drug use and offending are differently related to socio-demographic variables such as gender and socio-economic status. Informal social control and peer group context variables appear to be more related to offending than drug use. Regular drinking and smoking are unsurprisingly more related to drug use than offending. Neighbourhood deprivation is not related to drug use or offending and therefore not included in further analyses. This chapter has shown which factors are individually related to drug use and offending but multivariate analysis is necessary in order to establish whether each of these variables are important in explaining drug use and offending in the context of other factors. Although a factor like having a named best friend who used drugs is individually related to offending in exploratory analyses presented in this chapter, multivariate analyses in the next chapter will enable us to see whether this is important in explaining offending in the context of other factors. Multivariate analyses presented in the next chapter will allow for the further exploration of the relationship between these explanatory variables and drug use and offending.

CHAPTER 6: REGRESSION MODELS EXPLAINING DRUG USE, OFFENDING AND THE LINKS BETWEEN THEM

INTRODUCTION

Findings presented in chapter five showed that generally drug use and offending are similarly related to the set of explanatory factors. However, there were some interesting differences. Multivariate analysis is used in this chapter to investigate further the relationship between drug use, offending and other explanatory factors over the teenage years. Regression analyses are undertaken using a set of variables to explain drug use and offending separately. The role of involvement in one of these behaviours (e.g. offending) in explaining involvement in the other behaviour (e.g. drug use) two years later is also examined. Some of the literature reviewed earlier suggests that drug use and offending may both be explained by a similar but not identical set of factors and have some influence on each other.

This chapter tests a series of hypotheses:

- Drug use and offending can both be explained by a set of factors relating to: socio-demography; low informal social control or weak bonds; deviant peer group context; and deviant activity.
- The extent to which they are explained by a similar or dissimilar set of factors varies earlier and later in the teenage years.
- In the context of these explanatory factors, offending /drug use helps explain involvement in the other behaviour two years later.
- This is still the case once earlier involvement in the outcome variable has been controlled for.
- This is different earlier and later in the teenage years.

As this chapter will demonstrate, findings show that in the earlier teenage years there are more common factors that explain both drug use and offending than in the late teenage years. This is related to the different developmental timing of these two forms of behaviour. Drug use is relatively uncommon early on, but becomes widespread in the late teens, whereas offending (most of it minor) is common early, peaks around the age of 14, then declines. Early drug use is highly deviant and in that respect similar to offending, whereas much of the large increase in drug use that occurs in the late teenage years is unrelated to other forms of deviance and the factors underlying them.

Findings also show that earlier offending is part of the explanation for mid-teen drug use, even when other variables including earlier drug use are taken into account. Mid-teen drug use forms part of the explanation of later offending, even when mid-teen offending is included in the model. This chapter begins with a brief outline of details of data preparation. The second section uses separate regression analyses to see whether drug use and offending can be explained by a similar set of factors measured at the same age. This is done earlier and later in the teenage years. The third section uses lagged regression models at two different points in the teenage years to see whether offending /drug use helps explain involvement in the other behaviour two years later once explanatory variables are taken into account and finally once earlier involvement in the outcome variable is controlled for. Lastly conclusions are drawn.

SECTION 1: DATA PREPARATION

The set of explanatory variables are listed in table 6.1 below by domain. In chapter five in order to take a preliminary look at the relationship between the volume of self-reported drug use and offending and other variables, nonparametric correlation coefficients were calculated for continuous variables, and mean volume of drug use and offending were compared for binary variables. For the multivariate analyses presented here, ordinal regression was used because the dependent variables (volume of drug use and offending) are skewed (see chapter three).

Table 6.1 Set of explanatory variables used in the analyses

Variable name	Level of measurement
Deviant activity	
Volume of offending (ordinal version)	Categorical
Volume of drug use (ordinal version)	Categorical
Weekly smoking	Categorical
Weekly drinking	Categorical
Socio-demography	
Male	Categorical
Manual /unemployed socio-economic status	Categorical
Not living with 2 parents	Categorical
Low informal social control/ weak bonds	
Low parental supervision score	Continuous
Parent-child conflict score	Continuous
Stressful life events score	Continuous
Bad relationships with teachers score	Continuous
Low importance of school score	Continuous
Moral beliefs (accepting of offending) score	Continuous
Deviant peer group context	
Named best friend's volume of offending score ¹	Continuous
Named best friend used drugs	Categorical
Gang member	Categorical
Hanging around score	Continuous

The distribution and skew statistics of all the continuous variables from the set of explanatory variables to be used in the regression models were examined and skew statistics are presented in table 6.2.

¹ Cohort members were asked to name their best friends at sweeps 3 (age 14) and sweep 5 (age 16). Therefore, although this is not ideal the age 13 variables used here refer to drug use and offending at age 13 of the first named best friend (as named at sweep three). The age 15 variables refer to drug use and offending at age 15 of the first named best friend (named at sweep five).

Table 6.2 Skew statistics for continuous variables

Variable name	skew	transformation	skew post transformation
Volume of drug use score age 13	15.364	-1/sqrt	3.961
Volume of drug use score age 15	3.744	-1/sqrt	1.225
Volume of drug use score age 16	3.627	-1/sqrt	1.035
Volume of offending score age 13	2.758	logarithmic	.231
Volume of offending score age 15	2.845	logarithmic	.259
Volume of offending score age 16	4.113	logarithmic	.521
Low parental supervision score age 13	.788		
Low parental supervision score age 15	.668		
Low parental supervision score age 15	1.014		
Parent-child conflict score age 13	1.024		
Parent-child conflict score age 15	1.014		
Parent-child conflict score age 16	1.078		
Stressful life events score age 14 ²	1.081		
Bad relationships with teachers score age 13	.201		
Bad relationships with teachers score age 15	.383		
Bad relationships with teachers score age 15	.476		
Low importance of school score age 13	1.172		
Low importance of school score age 15	.788		
Low importance of school score age 16	1.745		
Moral (accepting of offending) score age 12	.445		
Moral (accepting of offending) score age 15	.172		
Sweep 3 named best friend's volume of offending score age 13	2.738	logarithmic	.209
Sweep 5 named best friend's volume of offending score age 15	2.780	logarithmic	.179
Sweep 5 named best friend's volume of offending score age 16	3.868	logarithmic	.492
Hanging around score age 13	-.287		
Hanging around score age 15	.213		
Hanging around score age 16	.319		

² Stressful life events score was only available at sweep 3 (age 14) so although it is included in the analyses presented in section three of this chapter it is not included in any of the models in section 2.

Most of the variables (aside from volume of drug use and volume of offending) were only very mildly skewed. These were transformed and entered into regression models on a trial basis in order to see if their transformation made much of a difference. Most of the variables had a skew statistics that were close to 1, and as their transformation barely altered the regression models a decision was made to use them in their un-transformed state. One of the variables, named best friend's self-reported volume of offending, had a skew statistic which was higher than 2 so this was transformed using a logarithmic transformation and this version of the variable has been used in all further analyses.

Volume of drug use at age 13 was extremely positively skewed (skew statistic 15.364) and even the negative reciprocal root transformation (used for severe positive skew) could not correct for this. The skew statistic was still high (3.961), so a decision was made to convert it into an ordinal variable for use both as an explanatory and outcome variable. Volume of drug use variables are broken down into different categories at each sweep and these are shown in table 6.3. The categories chosen reflect both the way in which questions were asked and the prevalence and incidence of drug use. Volume of drug use changed over the teenage years so different categories had to be used at different sweeps. At age 12, the percentage of cohort members who had used drugs four or more times was too small so it was treated as a binary variable. At age 13, 14 and 15 drug use categories were: no drug use; drug use 1 to 3.9 times; and four or more times. At age 16 the prevalence and incidence of drug use had increased so a fourth category was added (drug use eleven or more times). At age 17 the volume of drug use was measured in a different manner and the categories used reflect this (no drug use, drug use less than monthly, at least monthly and weekly or more).

Volume of offending variables were positively skewed, but were adequately improved using a logarithmic transformation. However, as the models: firstly with offending as an explanatory variable and drug use as the outcome variable; and secondly with drug use as an explanatory factor and offending as the outcome variable, were to be comparable, a decision was made to use ordinal versions of both drug use and offending as explanatory and outcome variables. Volume of offending was separated into five categories (no offending, offending 1-3 times, 4-10 times, 11-

21 times, and 22 or more times) at each sweep. Table 6.4 shows the percentage of cohort members in each of these categories at each sweep.

Table 6.3: Ordinal drug use explanatory /outcome variables

	Valid % age 12		Valid % age 13	Valid % age 14	Valid % age 15	Valid % age 16		Valid % age 17
No drug use	95	No drug use	94	83	72	67	No drug use	62
Drug use 1+ times	5	Drug use 1-3.9 times	4	9	11	10	Drug use 1-11 times	16
		Drug use 4+ times	3	9	17	7	Drug use 12-51 times	9
		Drug use 11+ times	N/A	N/A	N/A	14.5	Drug use 52+ times	13

Table 6.4: Ordinal offending explanatory /outcome variables

	Valid % age 12	Valid % age 13	Valid % age 14	Valid % age 15	Valid % age 16	Valid % age 17
No offending	25	29	24	31	39	59
Offending 1-3 times	25	21	19	19	20	19
Offending 4-10 times	22	22	20	19	17	11
Offending 11-21 times	15	16	18	15	14	7
Offending 22+ times	11	13	20	17	10	4

SECTION 2: EXPLAINING DRUG USE AND OFFENDING AGE 13 AND 16 (CROSS-SECTIONAL MODELS)

The aim of this section is to look at the extent to which drug use and offending can be explained by a similar or distinct set of factors and whether this is different earlier and later in the teenage years. This is done because if both behaviours are explained by the same factors, then they are expressions of the same underlying circumstances and are linked in that manner. If this linkage through the same underlying factors changes over the teenage years this suggests that the meanings of the two behaviours drift apart in the process of development from adolescence to adulthood. This set of variables relating to: deviant activity; socio-demography; low informal social control or weak bonds; and deviant peer group context, are used to explain drug use and offending separately. This is done at two different points in the teenage years: age 13 (section 2.1); and age 16 (section 2.2).

2.1 EXPLAINING DRUG USE AND OFFENDING AT AGE 13

A set of variables at age 13 is used to explain self-reported drug use at the same age. Separate ordinal regression analyses are then used to explain self-reported offending at the same age. As noted in chapter three, a backward procedure was employed, i.e. at first the model included the full list of variables, but every time I re-ran it I removed the least significant variable until all the remaining variables were significant. In order to deal with missing cases the weight relating to the sweep of the dependent variable was used (see also chapter three). Table 6.5 below gives the full list of variables included in the initial models (see first column) and estimates and p values and for those variables included in the final models. The second and third columns in the table show estimates and p values for variables in the final model explaining drug use at age 13 whilst the last two columns show estimates and p values for variables in the final model explaining offending at age 13³. Estimates for categorical and continuous variables are not comparable. NA (not applicable) signifies that the variable was not included in the model.

³ Parallelism was also tested for (see Appendix B3).

By comparing ordinal regression models presented in table 6.5 we can see that drug use and offending at age 13 are both explained by: engagement in other deviant activities (the other behaviour i.e. offending or drug use, weekly smoking and weekly drinking); being male; weak bonds to parents and teachers (parent-child conflict and bad relationships with teachers); and gang membership. All of the variables which explained drug use at age 13 also explained offending at age 13. This suggests that early in the teens drug use can be explained in a similar way to offending, by weak bonds and involvement in deviant activities.

Interestingly, involvement in offending at age 13 is particularly important in explaining drug use at the same age. Offending even has a stronger role (higher estimates) in explaining drug use than regular involvement in other forms of substance use. Though not as important as involvement in offending, weekly smoking and weekly drinking are part of the explanation of early drug use. Although the lowest category of offending (offending 1-3 times) was non-significant it was kept in the model. Therefore, instead of the reference category being 'no offending' it included the lowest category of offending as well (offending 1-3 times). Accordingly, those who were involved in more offending at age 13 are more likely than those who did not offend at all or offended 1-3 times, to have used drugs more at age 13. In explaining offending at age 13, involvement in more drug use at the same age is important and weekly drinking and weekly smoking also have a role to play.

Being male helps explain both drug use and offending at age 13. In the context of other factors, non-manual socio-economic status did not explain either drug use or offending at age 13. Although socio-economic status was not found to be related to drug use during exploratory analyses presented in chapter five, socio-economic status had been found to be individually related to offending. The fact that it does not explain offending here in the context of other variables suggests that it may have an impact through other factors, for example parenting factors. Not living with two parents helps explain offending, but not drug use, at age 13.

Table 6.5: Explaining drug use and offending at age 13

Explanatory variables (age 13 unless stated) in 1st model	Explaining drug use age 13		Explaining offending age 13	
	Final model estimates	p value	Final model estimates	p value
Offending 1-3 times^	NS	.121	NA	
Offending 4-10 times^	2.437	.017	NA	
Offending 11-21 times^	3.336	.001	NA	
Offending 22+ times^	3.801	.000	NA	
Drug use 1-3.9 times^	NA		.844	.000
Drug use 4+ times^	NA		1.036	.002
Weekly smoking^	1.806	.000	.703	.000
Weekly drinking^	.777	.002	.798	.000
Male^	.616	.003	.375	.000
Manual socio-economic status^	NS		NS	
Not living with 2 parents^	NS		.214	.009
Low parental supervision	NS		.470	.000
Parent-child conflict	.275	.003	.300	.000
Bad relationships with teachers	.389	.001	.466	.000
Low importance of school	NS		NS	
Moral beliefs accepting of offending age 12 ⁴	NS		.557	.000
Sweep 3 named best friend's volume of offending age 13	NS		.304	.000
Sweep 3 named best friend used drugs age 13^	NS		NS	
Gang member^	.607	.003	.886	.000
Hanging around	NS		.218	.000

^Categorical variable: estimate applies to named category

NS non-significant removed from model

N= 2637

Weak bonding to parents and teachers (parent-child conflict and bad relationships with teachers) explain drug use and offending at age 13. However, in the context of these factors low parental monitoring does not play a role explaining in early drug use. Low importance of school score does not help in explaining drug use or offending within the context of other factors. Interestingly it is the quality of

⁴ Moral beliefs accepting of offending score was only measured at sweeps 1 and 4 so in the relevant analyses instead of referring to age 13 and age 16 this variables relates to age 12 and age 15.

relationships (rather than levels of monitoring) that is important in explaining drug use, whereas for offending it is about both. Low parental monitoring, parent-child conflict, bad relationships with teachers and moral beliefs accepting of offending all play a part in explaining offending at age 13. Having moral beliefs accepting of offending did not explain drug use.

Of the deviant peer group context variables only gang membership (the most deviant of these) helps explain drug use. In the context of the strong role of volume of offending (and gang membership) in explaining early drug use, named best friend's volume of offending or drug use did not form part of the explanation of drug use at age 13. However, gang membership, which involves engaging with deviant peers, was important in explaining both.

These analyses show that early on in the teenage years drug use can be explained in a similar way to offending. Young people who are not bonded to family and school at an early age are more likely to spend time in offending based peer group contexts. It is in the context of their involvement in offending that their drug use can be understood. Both are deviant behaviours and early drug use is likely to have a similar meaning to offending.

2.2 EXPLAINING DRUG USE AND OFFENDING AT AGE 16

As we can see from table 6.6 below, at age 16 more involvement in drug use and offending are both explained by some of the same factors (the other behaviour i.e. offending or drug use, weekly drinking; being male; low levels of parental monitoring; and weak bonds to teachers). However, some of the factors explaining the two forms of behaviour at age 16 are different.

Along with weekly smoking and weekly drinking, offending at age 16 contributes to explaining involvement in drug use at the same age. Age 16 offending is explained by drug use and weekly drinking, but not by weekly smoking. Being male helps explain both drug use and offending at age 16. However, non-manual socio-economic status family background contributes to the explanation of drug use at age 16. The latter result is the reverse of the hypothesised impact of manual or unemployed socio-economic status family background. It is interesting that in the context of other factors, relatively middle class socio-economic status helps to

explain more involvement in drug use at age 16. Socio-economic status is not related to offending. Whilst not living with two parents contributes to the explanation of drug use this is not the case for offending at age 16.

Table 6.6: Explaining drug use and offending at age 16

Explanatory variables (age 16 unless stated) in 1st model	Explaining drug use age 16		Explaining offending age 16	
	Final model estimates	p value	Final model estimates	P value
Offending 1-3 times^	.350	.011	NA	
Offending 4-10 times^	.724	.000	NA	
Offending 11-21 times^	.994	.000	NA	
Offending 22+ times^	1.537	.000	NA	
Drug use 1-3.9 times^	NA		.479	.000
Drug use 4 -10.9 times^	NA		.530	.000
Drug use 11+ times^	NA		1.071	.000
Weekly smoking^	1.712	.000	NS	
Weekly drinking^	.702	.000	.569	.000
Male^	.219	.027	.297	.000
Manual socio-economic status^	-.492	.000	NS	
Not living with 2 parents^	.260	.009	NS	
Low parental supervision	.304	.000	.398	.000
Parent-child conflict	NS		.164	.000
Bad relationships with teachers	.242	.001	.337	.000
Low importance of school	-.140	.014	NS	
Moral beliefs (accepting of offending) age 15	NS		.529	.000
Sweep 5 named best friend's volume of offending age 16	NS		.253	.001
Sweep 5 named best friend used drugs age 16^	1.248	.000	NS	
Gang member age 16^	NS		.920	.000
Hanging around	NS		.299	.000

^Categorical variable: estimate applies to named category

NS non-significant removed from model

N= 2446

Lower levels of parental supervision help explain both drug use and offending at age 16. However, at this age, as compared to earlier in the teens, it

would have been more usual for young people to be less monitored by parents. Parent-child conflict is not part of the explanation of drug use at age 16 whereas it is for offending. Those who use drugs at age 16 are not weakly bonded to parents. Drug use at age 16 is explained by bad relationship with teachers, but also by higher importance of school. So although young people who use drugs at age 16 may not have very good relationships with teachers they still see school as being important. These findings suggest that those who use drugs more at age 16 have more middle class values. Having bad relationships with teachers is also part of the explanation of offending at age 16, but importance of school is not related to offending. Relaxed moral beliefs that are tolerant of some forms of wrongdoing are important in explaining offending, but not drug use at age 16.

Of the deviant peer group context variables only named best friend's drug use explains drug use at age 16. Gang membership, named best friend's volume of offending and hanging around are not related to drug use. This suggests that more involvement in drug use at age 16 is related less to offending based peer group contexts and more to close friend's drug use. In contrast, offending at age 16 is explained by named best friend's volume of offending, gang membership and hanging around score, but not by named best friend's drug use.

Results suggest that, whilst weak social bonds and involvement in offending based peer group contexts explain offending, drug use at age 16 can be understood quite differently. Those who engage in drug use at age 16 are more likely to be involved in offending and regular drinking, be male, less monitored by parents and weakly bonded to teachers. However, they also tend to be from a relatively middle class socio-economic family background, see school as important and have a close friend who uses drugs (rather than being gang members). These findings show that explanations for drug use and offending at age 16 are different to a certain extent, which suggests that these behaviours have different meanings.

Discussion

In comparing results presented in tables 6.5 and 6.6 it is clear that self-reported drug use is explained by a somewhat different set of factors earlier and later in the teenage years. At both ages more involvement in drug use is explained by:

engagement in other deviant activities; being male; and weak bonds to teachers. However, in addition, weak bonds to parents and gang membership help explain drug use at age 13, when it is more deviant. Drug use at age 16 is explained by: relatively middle class family background; commitment to school; lower levels of parental monitoring; not living with two parents; and named best friend's drug use. This suggests that drug use later on in the teenage years has a different meaning than it did earlier on. Whilst earlier drug use is explained similarly to offending, as a deviant activity, later drug use does not necessarily involve being less socially bonded. Earlier on in the teens offending is an extremely strong predictor of drug use. Low social bonding and offending based peer group contexts are not as important in explaining drug use at age 16.

In contrast, we can see that self-reported offending is explained by largely the same set of factors earlier and later in the teenage years. These are: involvement in substance use (drug use and weekly drinking); being male; lower levels of parental monitoring; weak bonds with parents and teachers; moral beliefs accepting of offending; and engaging in deviant peer group contexts (named best friend's volume of offending, gang membership, and hanging around). The only differences are that offending at age 13 is explained by weekly smoking and not living with two parents, whilst offending at age 16 is not. This suggests that over the teenage years explanations for offending and the significance or meaning of offending are similar. Whilst earlier drug use can be explained in a similar way to offending and they may represent similar behaviours earlier on in the teenage years, more involvement in drug use later on in the teenage years seems to represent something different to offending.

SECTION 3: THE ROLE OF DRUG USE/OFFENDING IN EXPLAINING THE OTHER TWO YEARS LATER

These lagged analyses aim to use the set of variables relating to: deviant activity (including offending /drug use); socio-demography; low informal social control; and deviant peer group context, to explain involvement in drug use /offending two years later. This is done at two different points in the teenage years.

Variables at age 13 are used to explain drug use at age 15 and then separately to explain offending at age 15 (section 3.1). The same set of explanatory variables as measured at age 15 is used to explain drug use at age 17 and then offending at age 17 (section 3.2). The ages used were chosen in order to explore the impact of early involvement (age 13) on mid-teen involvement (age 15) and of mid-teen involvement on later involvement (age 17). Building on and following directly after each of the above models is a second model, used to explain change in drug use (or offending). This is done by including drug use (or offending) at an earlier time among the explanatory variables, with drug use (or offending) at a later time as the outcome variable. In this way, having taken account of change in drug use we can see if earlier offending forms part of the explanation of drug use two years later.

3.1 EARLIER LAGGED MODELS

Findings from all four earlier lagged models are presented in table 6.7. The first and second models presented in the table use explanatory variables at age 13 to explain drug use at age 15. In the second model drug use at age 13 is added as an explanatory variable. The third and fourth models use age 13 variables to explain offending at age 15, with offending at age 13 being included in the fourth model. Results show that even when other variables are taken into account, earlier offending contributes to explaining mid-teen involvement in drug use, but early drug use does not form part of the explanation of mid-teen offending.

Involvement in earlier offending (age 13) plays a central role (along with weekly smoking) in explaining involvement in drug use two years later. Even with earlier involvement in drug use included in the model, earlier offending is important in explaining mid-teen drug use. In fact, the estimates for offending barely changed or reduced in strength. Weekly smoking at age 13 continued to form part of the explanation of drug use at age 15, though the estimate did reduce in strength with the introduction of earlier drug use. Perhaps surprisingly, weekly drinking at age 13 did not form part of the explanation of mid-teen drug use in the context of other variables. One might have expected that weekly smoking, drinking, and drug use at an early age would be important in explaining more involvement in drug use during the mid-teens. However, what we find is that early offending plays a central role,

along with drug use and weekly smoking, in explaining mid-teen drug use. In contrast, results show that drug use at age 13 does not have a role in explaining offending at age 15. Weekly smoking at age 13 does form part of the explanation of mid-teen offending, but not once earlier offending has been taken into account. The fact that early involvement in drug use does not explain mid-teen offending is surprising. It is in the context of many other important variables, which form part of the explanation of mid-teen offending (which was prevalent at that age), that early drug use (which was rare) did not have a role to play.

Interestingly, being female and non-manual socio-economic status family background form part of the explanation of mid-teen drug use. Girls, those from relatively middle class backgrounds, and young people not living with two parents are more likely to be more involved in drug use at age 15 (although estimates are much weaker than they are for offending, drug use and weekly smoking). Experiencing stressful life events and low levels of parental supervision also form part of the explanation of mid-teen drug use, though the latter does not remain in the model once earlier drug use has been taken into account. Earlier weak bonding to parents and school (parent-child conflict, bad relationships with teachers and low importance of school) does not have a role to play in explaining mid-teen drug use in the context of other factors. However, having moral beliefs accepting of offending at an early age does form part of the explanation of mid-teen drug use. In contrast to explanations of mid-teen drug use, boys are more likely to engage in more offending at age 15. Socio-economic status does not play a role in explaining mid-teen drug use, in the context of other factors. Not living with two parents and experiencing stressful life events and low parental supervision help explaining mid-teen offending as well as drug use. Mid-teen offending is partly explained by weak bonds (parent-child conflict and bad relationships with teachers), though these factors are no longer important once earlier offending has been included. Having moral beliefs accepting of offending at an early age is important in explaining mid-teen offending.

Table 6.7: Lagged models: age 13 variables explaining age 15 drug use and offending

	Explaining drug use age 15				Explaining offending age 15			
	Not controlling for drug use age 13		Controlling for drug use age 13		Not controlling for offending age 13		Controlling for offending age 13	
Explanatory variables (age 13 unless stated) in 1st model	Final model estimates	p value	Final model estimates	p value	Final model estimates	p value	Final model estimates	p value
Offending 1-3 times^	.490	.003	.517	.002	NA		1.124	.000
Offending 4-10 times^	.906	.000	.965	.000	NA		1.722	.000
Offending 11-21 times^	1.242	.000	1.263	.000	NA		2.312	.000
Offending 22+ times^	1.534	.000	1.502	.000	NA		3.112	.000
Drug use 1-3.9 times^	NA		.797	.001	NS		NS	
Drug use 4+ times^	NA		1.385	.001	NS		NS	
Weekly smoking^	1.241	.000	.995	.000	.672	.000	NS	
Weekly drinking^	NS		NS		NS		NS	
Male^	-.222	.032	-.220	.036	.398	.000	.261	.001
Manual socio-economic status^	-.435	.000	-.423	.000	NS		NS	
Not living with 2 parents^	.345	.002	.335	.003	.331	.000	.335	.000
Low parental supervision	.112	.048	NS		.265	.000	.124	.006
Parent-child conflict	NS		NS		.123	.004	NS	
Stressful life events age 14	.122	.020	.136	.010	.156	.000	.119	.004
Bad relationships with teachers	NS		NS		.229	.000	NS	
Low importance of school	NS		NS		NS		NS	
Moral beliefs (accepting of offending) age 12	.171	.003	.155	.007	.372	.000	.162	.000
Sweep 3 named best friend's volume of offending age 13	.299	.000	.288	.000	.310	.000	.239	.000
Sweep 3 named best friend used drugs age 13^	NS		NS		NS		NS	
Gang member^	NS		NS		.610	.000	.370	.000
Hanging around	NS		NS		.217	.000	.163	.000
	N= 2368		N= 2339		N= 2464		N= 2394	

^Categorical variable: estimate applies to named category

NS non-significant removed from model

It is interesting to note that named best friend's volume of offending forms part of the explanation of drug use at age 15, but named best friend's drug use does not. In the context of other factors, gang membership and hanging around at an earlier age do not help in explaining drug use at age 15. Of the continuous variables, named best friend's volume of offending has the highest estimate. This reinforces the finding that earlier involvement in offending is important in explaining involvement in mid-teen drug use. Being involved in offending and having a close friend who is involved in offending early on in the teens are extremely important in explaining more involvement in drug use at age 15. This is the case even when earlier involvement in offending is taken into account. This suggests that involvement in offending based peer group contexts open up later drug-trying opportunities. Mid-teen involvement in offending is unsurprisingly explained by earlier involvement in deviant peer group contexts: gang membership; named best friend's volume of offending; and hanging around. Although the estimates for these variables reduce when earlier involvement in offending is taken into account they continue to have a role in explaining offending at age 15.

In summary, self-reported offending at age 13 continues to be important in explaining self-reported drug use at age 15 even when earlier involvement in drug use is controlled for. The finding that earlier involvement in offending is important in explaining mid-teen drug use is reinforced by the fact that moral beliefs accepting of offending score and named best friend's volume of offending score also explain mid-teen drug use. In contrast, having taken other factors into account, drug use at age 13 is not part of the explanation of offending at age 15. Earlier offending has an impact on mid-teen drug use; but earlier drug use does not have an impact on mid-teen offending.

3.2 LATER LAGGED MODELS

Table 6.8 presents findings from the four later lagged models. The first and second models presented in the table use explanatory variables at age 15 to explain drug use at age 17 (drug use at age 15 is included in the second model). The third and fourth models use age 15 variables to explain offending at age 17, with age 15

offending being added in the fourth model. Results show that although mid-teen offending forms part of the explanation of later drug use, this is not the case once mid-teen involvement in drug use has been taken into account. In contrast, mid-teen drug use was significant in explaining later offending even when other mid-teen variables, including mid-teen offending, were taken into account.

Along with weekly smoking and weekly drinking at age 15, mid-teen offending plays some part in explaining drug use at age 17. However, looking at the estimates for the categories of levels of involvement in offending we do not find a stepped increase from lowest to highest categories. This suggests that lower levels of involvement in mid-teen offending are more important in explaining involvement in drug use at age 17 than the highest offending category. Also, mid-teen offending no longer has a role in explaining later drug use once involvement in mid-teen drug use has been taken into account. Mid-teen drug use is extremely important in explaining later drug use, whilst weekly drinking is much less important and weekly smoking does not remain in the model. In contrast, self-reported drug use at age 15 helps explain later offending even once a measure of offending at age 15 has been included in the model. In the former model, mid-teen drug use and weekly drinking helped explain later offending (though estimates for drug use were not as strong as those for gang membership or being male). In the next model mid-teen offending was extremely important in explaining later offending, and in this context the estimates for drug use were weaker and weekly drinking no longer had a role.

Table 6.8: Lagged models: age 15 variables explaining age 17 drug use and offending

	Explaining drug use age 17				Explaining offending age 17			
	Not controlling for drug use age 15		Controlling for drug use age 15		Not controlling for offending age 15		Controlling for offending age 15	
Explanatory variables (age 15 unless stated) in 1st model	Final model estimates	P value	Final model estimates	p value	Final model estimates	p value	Final model estimates	p value
Offending 1-3 times^	.387	.002	NS		NA		.935	.000
Offending 4-10 times^	.755	.000	NS		NA		1.616	.000
Offending 11-21 times^	.785	.000	NS		NA		1.837	.000
Offending 22+ times^	.729	.000	NS		NA		2.197	.000
Drug use 1-3.9 times^	NA		1.200	.000	.458	.000	.341	.012
Drug use 4+ times^	NA		2.099	.000	.928	.000	.76	.000
Weekly smoking^	.854	.000	NS		NS		NS	
Weekly drinking^	.477	.000	.383	.001	.266	.017	NS	
Male^	.233	.008	.237	.007	.932	.000	.898	.000
Manual socio-economic status^	-.375	.000	-.229	.015	NS		NS	
Not living with 2 parents^	.383	.000	.307	.002	NS		NS	
Low parental supervision	.306	.000	.268	.000	.198	.001	NS	
Parent-child conflict	NS		NS		.178	.000	.107	.041
Stressful life events age 14	NS		NS		.204	.000	.185	.000
Bad relationships with teachers	NS		NS		.212	.000	.143	.006
Low importance of school	NS		.115	.019	NS		NS	
Moral beliefs (accepting of offending) age	NS		NS		.392	.000	.156	.006
Sweep 5 named best friend's volume of offending age 15	NS		NS		NS		NS	
Sweep 5 named best friend used drugs age 15^	.603	.000	.313	.003	NS		NS	
Gang member age 16 ⁵ ^	.434	.001	.454	.001	1.137	.000	.956	.000
Hanging around	NS		NS		NS		NS	

⁵ Gang membership was measured at sweeps two and five so instead of referring to age 15 this variable relates to age 16.

	N=2178	N=2102	N= 2109	N= 2066
^Categorical variable: estimate applies to named category				
NS non-significant removed from model				

Being male forms part of the explanation of both later drug use and later offending, though the estimates for the latter are much stronger. Later drug use was partly explained by non-manual socio-economic status and not living with two parents. Neither of these factors helps explain later offending. Low parental supervision score at age 15 was important in explaining later drug use and although it was also part of the explanation for later offending it did not remain so once mid-teen offending had been taken into account. Whilst none of these weak bond variables (parent-child conflict, stressful life events, bad relationships with teachers and moral beliefs accepting of offending) played a part in explaining later drug use they did form part of the explanation of later offending. Interestingly lower importance of school score became significant in explaining later drug use in the model which took account of mid-teen drug use.

Named best friend's drug use played an important part in explaining drug use at age 17, however this estimate reduced with the introduction of mid-teen drug use to the analysis. Gang membership also formed part of the explanation of later drug use, though it had a much more important role to play in explaining later offending. Interestingly named best friend's volume of offending was not part of the explanation of either later drug use or later offending. This suggests that continued involvement in offending is less connected with close friends.

More involvement in drug use at age 17 is explained by: regular substance use at age 15; being male; not living with two parents; low parental monitoring; and deviant peer group contexts. However, later drug use is also related to relatively middle class socio-economic status and is not explained by weak social bonds. More involvement in offending at age 17 is explained by mid-teen involvement in offending and offending based contexts and weak bonds as well as drug use, which is likely to impact on later involvement in offending by weakening these bonds and deepening deviant involvement. In summary: mid-teen offending has an impact on later drug use, but not once mid-teen drug use is taken into account; yet mid-teen

drug use continues to explain later offending, even when mid-teen offending has been taken into account.

Discussion

It is interesting to look at whether the impact of offending and drug use on each other changes at different points in the teenage years. Earlier offending is important in explaining mid-teen drug use, even when earlier drug use is controlled for along with other explanatory variables. However, mid-teen offending does not continue to explain later drug use once mid-teen drug use is controlled for along with other factors. The impact of earlier offending on mid-teen drug use is stronger than the impact of mid-teen offending on later drug use.

With regard to the impact of drug use on offending over the teenage years, different patterns are observed. Earlier drug use does not have an impact on mid-teen offending, once explanatory variables have been taken into account. However, mid-teen drug use does have an impact (although it is not as strong as other factors) on later offending, even when mid-teen offending is controlled for. Over the teenage years once explanatory variables including involvement in the outcome variable two years earlier are taken into account, the strongest relationships involve: the central role of earlier offending in explaining mid-teen drug use; and the role of mid-teen drug use in explaining later offending.

SUMMARY AND CONCLUSION

This discussion focuses on the series of hypotheses set out at the beginning of the chapter. Although drug use and offending can both be explained by variables relating to: socio-demography; low informal social control or weak bonds; deviant peer group contexts; and deviant activity, there are some important and interesting differences between the explanations. Earlier on in the teenage years drug use can be explained by a very similar set of factors as offending, whereas later in the teens these explanations vary. Results show that young people who are more involved in drug use at age 13 are weakly bonded to school and family and engage in offending

based peer group (gang) contexts. It is in the context of involvement in offending that early involvement in drug use can be explained. Both are deviant behaviours and early drug use is likely to have a similar meaning to offending. In-depth interviews are used to understand the meanings of these behaviours for young people and findings are presented in chapters seven and eight.

Interestingly, drug use at age 16 is explained by relatively middle-class socio-economic status and not necessarily by being less socially bonded. It is also explained by close friends drug use rather than by gang membership. This suggests that drug use at age 16 should be understood quite differently to both offending and earlier drug use. Drug use later on in the teenage years seems to have a different significance than it does earlier on. The meanings of drug use and offending drift apart over the teenage years. Results highlight interesting differences in the relationship between drug use, offending and gender as well as social class.

Being involved in offending and having a close friend who is involved in offending early on in the teens is important in explaining more involvement in drug use two years later. This suggests that involvement in offending based peer group contexts opens up drug-trying opportunities. Interestingly, having controlled for earlier involvement in drug use (at age 13), own offending and close friends involvement in offending at age 13 remain central to explaining drug use at age 15. This reinforces the finding that earlier involvement in offending impacts on mid-teen drug use.

In contrast, early drug use does not explain mid-teen offending when other explanatory variables are taken into account. It is rather surprising that early drug use, being rare, does not help explain involvement in offending at age 15. This is difficult to explain. One way of looking at it is to say that it makes sense that early drug use does not explain mid-teen offending because it (early drug use) is so rare and mid-teen offending is so well explained by other factors that have been taken into account. That is, the small number of early onset drug users do not form part of the explanation of mid-teen drug use, which is engaged in by many young people who have not been involved in drug use early on. This finding opens up interesting questions for further research.

Mid-teen offending explains later involvement in drug use, but not once mid-teen drug use has been controlled for. Later drug use is explained by non-manual socio-economic status and not by weak bonds during the mid-teens. Although it is not as important as other factors, mid-teen drug use continues to explain later offending even when mid-teen offending has been taken into account. More involvement in offending at age 17 is explained by mid-teen involvement in offending and offending based contexts and weak bonds as well as drug use, which is likely to impact on later involvement in offending by weakening these bonds and deepening deviant involvement.

In summary: having taken account of explanatory variables including involvement in the outcome variable two years earlier, earlier offending is central to the explanation of mid-teen drug use; and mid-teen drug use forms part of the explanation of later offending. Findings presented in this chapter support the idea that drug use and offending may be explained by a similar but not identical set of factors and have some influence on each other. The extent to which they may be explained in a similar way changes over the teenage years, as does their role amongst other variables in explaining later involvement in the other behaviour.

Social bonds present a certain paradox. Early drug use and offending can be explained with reference to weak social bonds and deviant peer group contexts. Young people who experience weak social bonds at a young age are more likely to engage in deviant peer group contexts. In the absence of constraint they are more likely to engage in drug use and offending. To look at it in another way, they are lacking social bonds which confer power, and with it freedom or the capacity to act. However, the fact that young people who do not seem to be weakly socially bonded, engage in drug use later in the teens is extremely interesting. Whilst drug use is deviant and can be explained in a similar way to offending earlier on in the teenage years drug use is likely to have a different meaning later on in the teenage years. This will be explored further in the next two chapters.

CHAPTER 7: EXPLANATIONS FOR DRUG USE AND OFFENDING: 'NOTHING TO DO' /THE 'WRONG CROWD'

INTRODUCTION

Thus far findings have shown that early on in the teenage years drug use can be explained in a similar way to offending, whilst later drug use should be understood differently. Chapters seven and eight aim to add depth to explanations of drug use, offending and the relationship between them, by understanding the role of these behaviours in the lives of young people. Qualitative findings provide an opportunity to describe young people's lifestyles and the contexts in which they use drugs and offend. This also facilitates the further interpretation of findings presented in previous chapters. These qualitative chapters will show how the social meaning of drug use changed over the teenage years.

Findings are presented here by subgroup and as noted in chapter three are based on in-depth interviews, which were conducted with twenty-seven Edinburgh Study cohort members when they were 18 to 19 years old. The aim was to get an understanding of the lived experiences of young people who used drugs, some of whom engage in offending and some of whom do not. Though guided by a semi-structured interview schedule, in-depth interviews were flexible and informal. Generally rapport was extremely good and interviewees were very open about their experiences.

Subgroups

During preliminary quantitative analyses initial subgroups (no drug use, lower level drug use or higher level drug use) were created. This was based on drug type (cannabis use versus other drug use) and frequency of drug use (less than or more than monthly) in the last year at age 17. It was on the basis of their self-reported drug use and offending at age 17 that interviewees were selected (see chapter three for details). However, during the in-depth interview process it became

apparent that in describing and categorising young people's drug use, sufficient information was not available from self-report questionnaires. Simpson's (2003) fivefold schema (regularity, degree, type, style and centrality) was used in an attempt to categorise individuals' drug using behaviour as recreational, persistent, or dependent over the course of their drug career. However, it proved difficult to break young people into meaningful subgroups on the basis of drug use categorisations. The nature of young people's drug use may be different for various drugs even at a single point in time and they may move in and out of different categories of drug use throughout their drug career. Instead, interviewees held together in groups on the basis of different social meanings of drug use. Young people were divided into three subgroups depending on when they had started using drugs other than cannabis: early onset (13 or younger); mid teen onset (14 to 16); and later onset (17 or older). Those who had only ever used cannabis (not other drugs) made up the fourth group. The names of interviewees included in each of these groups are listed in table 7.1 below (N.B. all names have been changed).

Table 7.1 Subgroups: age of onset of other drug use

Early onset (age 13 or younger)	Mid-teen onset (age 14-16)	Later onset (age 17+)	Cannabis only
Barry	Kirk	Liam	Craig
Lee	Nick	Laura	Helen
Emma	David	Gary	Philip
Nina	Yvonne	Stephen	Colin
	Tracy	Marie	Jess
	Natasha	Rachel	Neill
	Anna	Mike	Andrea
		Tom	
		Jack	

Outline

As I aim to demonstrate, subjective understandings of drug use and explanations for drug use vary by subgroup. When examining the relationship between drug use and offending over the teenage years, it is of central importance to look at how drug use and offending careers map onto each other. Early and mid-teen onset drug use went hand in hand with offending, confirming quantitative findings

presented earlier. Whether seen as being related to having ‘nothing to do’ or hanging around with a ‘bad group’, both were strongly connected to peer group context. Later onset drug use was more likely to be portrayed an enjoyable lifestyle choice. The relationship between drug use and offending was stronger earlier rather than later on in the teenage years.

Chapters seven and eight look at explanations for drug use and offending and the relationship between them over the teenage years by exploring the experiences of young people in various subgroups. Early onset drug use (section one) and mid-teen onset drug use (section two) are explored in this chapter. Chapter eight deals with later onset drug use and users of cannabis only. Each of these sections explores the spheres of family; main and leisure activities; and friends. Finally, conclusions are drawn.

SECTION 1: EARLY ONSET

Emma, Lee, Barry and Nina became involved in drug use and offending at quite a young age. Early onset drug users were weakly bonded to family and school, were unsupervised by parents, truanted from or dropped out of school and spent a large amount of unstructured time hanging around in the street at a young age. They spent this time with groups of young people, sometimes gangs (primarily in the case of males) and their offending and drug use took place in these group contexts. Boredom was the central explanation given by these young people for both their drug use and offending. For this group of young people explanations for involvement in both these deviant activities echo quantitative findings which showed that these behaviours can be understood with reference to low levels of social bonding and deviant peer group interactions.

Coping with family problems

Although young people across all subgroups said they had used drugs to deal with things that were going on in their lives, it was the early onset drug users who tended to have had major family problems and experienced multiple stressful life

events at a young age. Early onset drug users' parents tended to be the only parent in the household, be unemployed and live in deprived areas of the city. In addition, parents often had their own complex needs, including drug or alcohol problems. Early onset drug users tended to have had extremely chaotic home situations, to have argued with their parents and spent a great deal of time unsupervised and out of the home. For example, Lee's mum was an alcoholic and as a result things were very difficult in his house. His mother embarrassed him, his parents were constantly arguing (before they split up) and his relationship with his parents was bad. He spent as much time as possible out of the house when he was younger and got into a great deal of trouble.

Drug use can be understood in the context of family problems as a means of forgetting or getting away from it all. Lee spoke about using drugs with the purpose of getting intoxicated in a very different way to the intoxication effect desired by other subgroups in the context of going out and partying. Lee said he took valium to get 'out of it'.

'to get a bit of a stone' (Lee, early onset)

He liked the feeling of dozing off, waking up and dozing off again when he took heroin and valium together. He said that by using heroin and valium together, they

'Knock you out, quite funny.' (Lee, early onset)

He also used valium to get to sleep.

'Em well vallies, valium I do use occasionally, sometimes it's just for sleep basically but I mean sometimes I just take it to get a stone [get stoned] or whatever, cause, maybe to relax or whatever... usually be at night and I'm trying to get asleep and I can't get asleep, take a couple to get me to sleep basically... because sometimes I can't sleep very well which is annoying.' (Lee, early onset)

Emma saw her drug use and offending as having been related to her home life. During her childhood she had had to cope with: the fact that her mother had HIV; there were always drugs around the house; and she witnessed her Mum's boyfriend repeatedly being violent towards her. Emma's father had died of a heroin overdose when her mother was pregnant with her, and her mother's subsequent boyfriend also died. Emma had not had a good relationship with her mother, who did not know where Emma was most of the time during her early teens. In addition she

did not get on well at school, truanted a great deal, moved between various schools, and then dropped out altogether. At age 13 she had been involved in petty offending, drinking and using solvents, ecstasy, valium, and heroin. Emma, said she acted like she did because of the things she had to deal with at home.

‘Aye well my Dad died when my Mum was pregnant with me, it wasn’t really any good when I was a bairn [child], it was really because of my Mum’s boyfriend, it was really because of him eh. He battered my Mum and did things like that, so like growing up and that, and I think that’s like how I did everything I did at that age.’ (Emma, early onset)

Emma spoke of using aerosols to escape from it all.

I think it [deodorant /solvents] just took me away eh ken, I don’t know, I was somewhere else for a wee while. (Emma, early onset)

I: AND WERE THINGS HARD AT THAT TIME [WHEN TAKING SOLVENTS]?

Aye. But I think that’s how I done all of it about that age cause I was quite messed up and that.’

I: HOW DO YOU MEAN LIKE JUST WITH WHAT WAS GOING ON AT HOME?

Eh aye, ken just from when I was younger and just like quite a lot of things.

...

She also suggested that her heroin use may have been connected to the problems she had.

‘I’ve heard like on the telly and that or whatever people saying that it [heroin] makes you forget things and that, and that you’ve not got any worries or nothing. But I don’t know, I can’t really remember, like I did have a lot of sort of problems and that then so I don’t know if maybe that was why I done that.’ (Emma, early onset)

For Emma, drug use can be understood as a reaction to her chaotic family situation. However, on the other hand any control or limitation of her drug use was related to the responsibility she felt towards her own child. Between age 14 and 15 she became pregnant and had a baby and said she had reduced her drug use and offending from that point.

‘Like obviously when I fell pregnant with him I didn’t take anything after that, I didn’t drink or nothing all through my pregnancy, well I tell a lie, I smoked hash, I smoke a couple of spliffs [joints of cannabis] and that now and again. But since I’ve had him I’ve grew up a lot, it’s all sort of stopped and that, I’m a bit wiser.’ (Emma, early onset)

With regard to her use of heroin Emma said:

‘Ah that was just a couple of times, ken once in a blue moon sort of thing. It was nothing serious or often or anything like that.’ (Emma, early onset)

Yet, later on in the interview she said she had recently used it occasionally.

Although Emma said she did use heroin on an almost daily basis at certain points in time she did not appear to have used it dependently. This was what she said about why she did not use heroin more than occasionally:

‘Well I don’t know, I think it’s because well with my Dad like [Dad died of overdose] and with him [3 year old son] and with my Mum sort of being on drugs when I was younger and that. I think that’s sort of when I was younger I always remember thinking ‘I’m not going to be on drugs or anything ken when I’ve got a bairn [child] I’ll never.’ And that’s why I don’t smoke in front of him or anything like that, and I think that’s why eh, because of what I seen when I was younger and everything and I think that’s how I’ve got the will power to not want it [heroin] and not enjoy it when I’m doing it. But I think that’s why eh, why I’m not interested about if I take it, I don’t think about it or things like that.’ (Emma, early onset)

However, Emma’s account of her own drug use must be understood in the context of the interview situation and the fact that she was likely to want to portray an image of herself as a responsible mother. Although at the time of interview Emma said she was using drugs a great deal less than she had done in the past, she still said she was occasionally using alcohol, cannabis, valium, and heroin.

In looking at the way drugs are used by young people (style or method of administration) it is interesting to note that, even amongst those who reported using heroin there was a taboo regarding injecting. When Emma was asked how she used heroin she replied:

‘Smoke it, I’ve never, I wouldn’t use needles, my dad died of it so I wouldn’t do that pal I wouldn’t.’ (Emma, early onset)

Lee also said he would not inject and preferred to smoke the drug. Mike (later onset) said he had tried heroin a couple of times, but he had snorted it.

‘Nothing to do’, ‘for the buzz’

In the absence of positive involvement with family and school, early onset drug users spent a large amount of unstructured time in the street. They did not spend much time at home or school and tended to hang around with a group of young

people, offending, drinking and taking drugs at an early age. These young people tended to have truanted a great deal, been expelled from schools or stopped going to school at quite a young age.

Those interviewees who began using other drugs at an early age said that having 'nothing to do' was the reason why they drank and used drugs. These young people had problems at home and at school, were not engaged in structured after school activities and lived in areas where young people hung around in the street. It is in this context, and with reference to the paradox that social bonds present, that boredom must be understood. With weak bonds comes a certain 'freedom', better understood as the absence of constraint. However, what these young people are lacking is a more positive 'freedom', that is, the capacity to act, which is more likely to come with being socially bonded. It is in the absence of both constraint and the capacity to act that young people perceive themselves as lacking opportunities and having 'nothing to do'. They reacted to this frustration or feeling which they described as boredom by engaging in drug use and offending as an antidote. Emma cited having nothing to do as the reason for both her drug use and offending.

'We just really used to hang about really. But I think it was because there was nothing for us to do, and that's all there was for us to do was sort of hang about the streets and sort of get drunk and that because there's nothing, there's nothing, no wonder everybody goes out and gets drunk and everything, young people, because there's nothing for them to do.' (Emma, early onset)

When asked whether using or trying drugs (such as ecstasy, speed, cocaine, heroin, downers, methadone) was important to her Emma said:

'Just sort of like doing it and everything. And it was just really something to do just out of boredom because there was nothing to do.' (Emma, early onset)

Barry began drinking alcohol aged nine, smoking cannabis at ten and using volatile substances at age 13. He said he had stopped going to school because of trouble from a rival young team (gang) from a neighbouring area. Instead of going to school he would use aerosols and buzz gas. Between the ages of 13 and 14 he had begun breaking into houses repeatedly, with other people. During this time he had been drinking a great deal and smoking hash. Barry cited boredom as a reason for both his offending and drug use. Both appeared to have been tied up with his

truanting from school and his involvement in a young team (gang). When asked about his drinking and offending when he was 13 to 14 Barry said:

‘Sheer boredom, there was nothing for us to do. And I know it is easy just to blame it on ‘oh there was nothing to do’ because we were bored. But most of it is because we were bored.’ (Barry, early onset)

Among other things Barry had broken into many houses, driven stolen cars, set fire to things and been in fights. He had been heavily involved in offending, had many Children’s hearings panels, been placed on supervision for many years and had been put in residential care for repeat offending. He said he had begun to reduce his offending from age 16 onwards but had started using other drugs (such as ecstasy) quite heavily around that time. At the time of interview he said he had cut down on both his drug use and offending. However, he said he was drinking heavily at the weekends, using ecstasy, speed and cocaine almost weekly. He had a job and said he had stopped offending, but during the interview he mentioned a recent occasion when he had seriously assaulted someone. Barry also said he was drinking heavily and every night at the weekends. Himself and his friends would drink as much as they could and be six or seven times over the limit, about 30 cans of beer each.

‘As much as there is to drink, till it’s gone’ (Barry, early onset).

At one point Barry had gone through a phase where he had been taking 4 or 5 ecstasy tablets every day. He said that he had not used drugs as much when he had been in residential care. Barry had used them more when he came home at the weekends because there was nothing to do.

‘Because it would be pure sheer boredom.’ (Barry, early onset)

Barry described using drugs and offending as an antidote to having nothing to do. It seems that these were exciting activities that he obtained a ‘buzz’ from. His sensation seeking fits with Katz’s (1988) appreciation of the sensual attractions of crime. In fact, Barry spoke about his offending in a manner akin to describing drug use. He broke into numerous houses and said he had been addicted to the adrenaline rush he received from it.

‘It’s not like we were stealing for drugs, it was just stealing because of the feeling that it gave us, the adrenaline rush that it gave us when we were in the house, knowing that somebody could come back and kick our heads in or something. It was a buzz for us to feel that scared. It wasn’t scary to us, we

enjoyed it.' ... 'It was a brilliant buzz, it was a better buzz than any of those drugs put together. It was like, because it's a pure adrenaline kick man, cleans all your veins and all your arteries and that because the blood's pumping that fast.' ... 'You'd still be on a high and that, you'd be high all day, just off 'we broke into a house and that' and then like the police would arrest you and they would knock that high so we would go around doing it again.' ...

'I was so easily addicted to it, we were addicted to breaking into houses cause of the sheer buzz that you get, so it wasn't like intentional and I suppose there could have been other stuff that we could have done like started a wee football team or played football, it's just when we got into it [housebreaking] it was really hard to get off it.' (Barry, early onset)

Barry said he had never been under the influence when he was breaking into houses because it would have spoiled the adrenaline rush.

I: SO DOING ANY OF THESE CRIMES, MUCH OF THE TIME WERE YOU DRUNK OR ON DRUGS WHEN YOU DID THOSE THINGS?

'Not when I was breaking into houses, I wouldn't break into a house drunk or that I would always go sober. Cause it was brilliant' (Barry, early onset)

He said that whilst he and his friends had been drinking or on drugs they did not really get involved in much offending because they would not have had a clear head. Barry talked about fights that had happened between their young team and another rival gang when they had been drunk, but he said that the fights would have happened in any case, whether they were sober or drunk.

I: AND WHEN YOU WERE DRINKING OR ON DRUGS DID YOU DO MANY CRIMES?

No it was like we were playing, not getting involved in any trouble or that. We would, cause when you are on drugs you have not got your full head so if you do something you are stupid.

I: SO YOU WOULDN'T HAVE DONE STUFF LIKE BREAKING INTO HOUSES, BUT WHAT ABOUT FIGHTING OR STUFF?

Aye we would do that and sort of just part of how is it they described it, Buckfast fuelled Neds. But we weren't Neds and we didn't drink Buckfast, I prefer Jack Daniels myself.

I: SO DO YOU THINK IT'S RELATED THE DRUGS YOU TOOK AND THE CRIMES YOU DID?

Not really, cause it would have happened if we were sober as well.

However, he said that he had beaten someone up when he was on speed once and the speed had made him feel fast and hyper.

'Whenever we are on eckys [ecstasy] we might go for a wee fight and that cause you feel like Superman, you feel hard and faster and it feels like your senses are tuned up and you can't really feel pain when you are on eckys [ecstasy]. (Barry, early onset)

Lee had begun using cannabis at 10, drinking at 11 and drugs such as speed from the age of 12. He had been involved in a young team (gang) and had been offending (for example breaking into cars 'for a laugh') around that age (12 to 13) as well as using drugs (such as speed and ecstasy). He spent a large amount of time out of the house and between ages of 9 and 15 or 16 he had been involved in a young team with older people. From 14 to 16 he had been stealing a great deal more, and at 16 he first tried heroin. Lee said that his drug use and offending were not connected, but they were both something to do. However, he said he had stopped drinking for quite a while because he had been getting in trouble for damaging things, assaulting people etc. Lee directly attributed his violence to alcohol.

'For some reason it just started like when I would get drunk it would turn me violent or whatever and I would just do stupid things basically, smash up cars or assault people or whatever, that's why I stopped drinking eh because I was getting in too much trouble.' (Lee, early onset)

Lee had been talking about a phase he went through a couple of years previous to the interview when he felt drink turned him violent, but he had also been involved non-drink fuelled violence from very young age when he used to go about fighting with the young team he was in.

I: WHEN DO YOU NORMALLY GET INTO FIGHTS, HOW DOES IT NORMALLY HAPPEN?

'Sometimes maybe when I'm drunk, but I mean when I was younger we used to just go fighting for the fun of it basically like to different places' (Lee, early onset)

Young people who had been in fights had, on occasion, been under the influence of alcohol (or more exceptionally other drugs). Either violence was attributed to alcohol or young people said they would have done the same thing if it had happened when they were sober.

At the time of interview Lee said he was no longer offending, but was still drinking alcohol and using valium and heroin. Lee had used heroin on and off for a few years, sometimes going through phases where he used it on a daily basis for a couple of weeks, but he did not describe his use as being dependent. He explained why he did not use it all the time and went on to say that he never really feels like he needs it. He said boredom was still a trigger for his heroin use.

'No I did think about it sometimes actually but strangely enough I used to go sometimes about a month before I would go and do it again. I mean I liked it but I don't like it that much (laughs) to use it all the time.' ...

I: 'DO YOU FEEL LIKE THAT YOU NEED IT WHEN YOU DON'T HAVE IT?

No. What you mean like am I addicted? No, just when I'm bored.' ...

'Probably em, I don't know just sometimes I'd be really bored and couldn't be bothered doing much, and that's probably when I would do it [smoke heroin] when I'm bored, because when I'm doing something I don't really think about it, I'm not bothered about it, but usually when I'm bored I do want to go out and just do something, it's a good way to escape like ...

I: GOOD WAY TO ESCAPE FROM WHAT LIKE?

Just boredom, cause I mean quite a lot these days I'm just sitting in the house basically, if I'm not at my mates house and if I can't be bothered playing the computer or whatever I'll probably think about it then.' (Lee, early onset)

Lee and Barry both felt that some offending and drug use were both just 'something to do'.

I: AND WAS THE FACT THAT YOU USED TO KIND OF GET INVOLVED IN CRIME AROUND THEN AND TAKE DRUGS OR DRINK, WERE THEY CONNECTED IN ANY WAY?

'What to the fighting and that? No, just something else to do I think basically.

I: SO THE DRINKING AND USING DRUGS AND THE GETTING IN FIGHTS?

Were separate.

I: AND THEY WERE BOTH SOMETHING TO DO YEAH?

Pretty much' ...

I: I'M JUST TRYING TO UNDERSTAND IF ANY OF THE CRIMES OR OFFENDING YOU'VE BEEN INVOLVED IN HAS BEEN RELATED TO ANY OF THE DRUGS OR THE DRINKING?

'Nah, I think it's probably again just something to do cause going out getting money and it's buy stuff basically and I think I've never needed to steal money for drugs or drink so I think they are probably. I think maybe when I was sort of younger I think it would be like drugs, and then drink and then but then as I've got maybe 15, 16 I've done a lot of stealing, I think they are unrelated though.' (Lee, early onset)

One of the main reasons young people said they had offended was because they were bored. Barry's offending seemed to have been tied in with his having nothing to do.

'It was like when I didn't go to school we were bored, and that's when we started getting into trouble, it was me and two or three, or sometimes there would only be me and another boy, or me and two boys, at the very most there would be five of us and we would all go house breaking.'

I: SO WHAT DOES CRIME DO FOR YOU EH, WHY DID YOU DO IT?

It gave us meaning, something to do because there was nothing for us to do at all.' (Barry, early onset)

Again, in keeping with Katz's thesis; amusement, excitement and pleasure were given as explanations for offending. Young people said they offended 'for a laugh', for the buzz they obtained from it, or because they enjoyed it. Nina spoke about how shoplifting had been fun.

'Aye [laughs long and loud] we used to all go out and sort of have a steal, but it used to be for a laugh eh, it was probably because we enjoyed it, it wasn't cause we had to do it. We just did it for a laugh.' (Nina, early onset)

Lee said he used to steal and break into cars 'for a laugh'.

'For a laugh, just smashed the windows in, broken the doors and jumped in' (Lee, early onset)

Young people had also committed acquisitive crimes in order to get money or goods for themselves. Some of the young people who had shoplifted said some of it had been stolen to sell on to get money and some of it had been for clothes, CD's etc. for themselves. Interviewees sometimes said they stole to order.

'Yeah, video players and that, if somebody wanted a video player we would go out and get it, we wouldn't break into a house and take all the stuff and then try and sell it, we would only take what we were ordered to get. Sometimes look through the window of the living room and see what make it was and if it was shite and that we would just leave the house and go to the next one.' (Barry, early onset)

Less commonly, young people said they had stolen things on occasions in order to get money to buy drugs (drug driven crime). Alternatively they said the money they had made from offending may have been spent partly on drugs (drug related crime). Barry said they used to break into houses to get money, alcohol, and weapons (all of this seems to have been for the gang).

'We were all living it up ... I suppose in a way we were glamorising it. We would get like a couple of hundred pound a day and then we would just go out the next again day and do the exact same. We would just like blow it all on that day, take all of us [young team/gang] to the pictures and that.' (Barry, early onset)

Emma had shoplifted with her friend so they could get money for drugs (heroin and valium). Nina had stolen from shops and sold the goods on to get money for rent, bills, food etc. and may have spent some of this money on drugs. However, she had

also shoplifted on many other non drug-related occasions, for example when she was younger she shoplifted 'for a laugh'. Lee said he used to steal to get money to buy things (clothes, CD's etc.) for himself, but had not stolen to get money for drugs.

Young people commonly employed neutralisation techniques, such as denial of victim and denial of responsibility, when explaining their involvement in offending. Barry said he had seriously assaulted someone because he suspected he was a paedophile and he was going to take one of the younger boys back to his flat to drink with him.

'He had a fractured skull and he was in intensive care but he lived eh and everyone was saying that's sick and then I found out he actually was a beast [paedophile] so that's ok [laughs], that makes it ok.' (Barry, early onset)

The young people who had been involved in fighting tended to say that they were not responsible for starting the fights, it was someone else coming up to them.

'I don't start them or nothing, I don't like trouble, I just go out to have a laugh, have a good time eh. If I've ever been in a fight it's been when I've been trying to stop it or stick up for my pal or something eh.' (Nina, early onset)

From the age of 13 Nina started smoking, drinking, smoking cannabis and was from then on involved in offending (mainly shoplifting and fighting). At the age of 13 she also tried various drugs such as cocaine, ecstasy and speed. Nina revealed that she had first begun using speed to help her lose weight. Initially she said she shoplifted 'for a laugh', but as time went on she was stealing goods to sell and committing benefit fraud to get money to pay the rent and bills. When Nina was 15 years old she had moved out of her parents house and in with her then boyfriend, who was 39 years old at the time. She had been on benefits and working in a cash-in-hand part-time job, but her boyfriend had been in and out of prison all the time, and so she said she started stealing to get enough money to pay the rent and bills. During this time she had continued to use more and more speed and around the age of 15 and 16 she had lost worrying amount of weight. Nina used speed as an appetite suppressant and at the time of interview had been using speed on a daily basis for a considerable amount of time. She said that she never ate during the day but would sometimes eat when she got drunk.

'I've got a big thing about my weight.... I always felt sort of fat, and I wasn't fat really.

I: WOULD YOU SAY SPEED IS RELATED TO HOW YOU FEEL ABOUT YOUR WEIGHT AND THAT?

Aye, aye [coughs loudly], I've got to stop ... It's not really a big thing, it's not like I'm overweight or something, but it is to me, I see it as a big thing. (Nina, early onset)

Her use of speed was not recreational, as she said she was using it to get her up for work in the morning, rather than as part of her leisure time.

'It's really just it gets me through my work and I feel I can get up in the morning with it, and I couldn't get up in the morning otherwise' ... (Nina, early onset)

Nina's use of speed could be described as dependent. She said that over time her use of speed has increased. When she began taking speed she was taking a gram a week, but at the time of interview she was taking a gram at once.

'At that point it was like aye in the morning when I got up, and I felt it sort of easing off me and I sort of felt more tired and I didn't want to be like that I wanted more and more and more and more and that's when I started doing one [one gram of speed] in one go, because before that it was like one would do me all week. Scary eh, I'd hate to see my insides honestly [laughs].' (Nina, early onset)

Her tolerance had increased and she said that the more she took it, the more she needed it.

'I just started doing it more often and more often and then the more you take it as well the more you need to take it. I think that's how it's got to how it is'. (Nina, early onset)

Nina's use of speed was inextricably linked to the issues she had with her body image and weight. Her use of speed was causing her to get into debt with her mother and she also revealed that she was due her drug dealer quite a bit of money as a result. When asked what life would be like without speed Nina said:

'I wouldn't want to go there'. (Nina, early onset)

Nina said she felt bored easily and was going to the pub and drinking on a daily basis. Alcohol was also part of her daily routine and at the time of interview said of the fact that she was going to the pub and drinking every night that she 'can't deal with it'. For Nina, the function of alcohol had changed over time:

'Well I started drinking more now eh, before and that it was fun when I first started drinking it was a good laugh, but now it just seems like part of my every day.' (Nina, early onset)

Interviewees did tend to legitimise the drugs they took themselves. Nina acknowledged that speed was bad for her, but said it was not deadly like heroin, which she would not touch. When asked about their future drug use, bad past experiences were given as a reason why young people said they would never take a drug again. For example, Emma had a bad first experience when she tried methadone and said she would never touch it again (she thought it was horrible and it made her sick). Nina had been hospitalised when she first had cocaine and ecstasy with her uncle. Findings may be suggestive of the effectiveness of certain education programmes. For example, Emma spoke about how when she was much younger she had been using various drugs including ecstasy and solvents regularly. She said she had been scared about the risks associated with ecstasy and that once she saw something on the television that said that there was more risk of dying from using solvents than ecstasy she stopped taking solvents.

Friends and gangs

Early onset drug users tended to have hung around in the street with groups of young people, some of whom were often older than they were. The peer group contexts they spent time in were often gangs. For those who were involved with their local young team (gang), offending, drinking and drug use tended to have been intertwined with this gang lifestyle. For example, they were involved in fights with rival young teams in different areas. Some young people described the areas they grew up in as having been riddled with drugs and crime. Early onset drug use was closely related to street-based offending contexts.

In general young people across the subgroups tended to have said that their friends' drug use was similar to their own. At the time of interview, early onset drug users were more likely than other interviewees to have said they had friends who were using drugs more heavily than they; for example injecting heroin. Early onset drug users seemed to have been more likely to be subject to direct peer influence or modelling than mid-teen or later onset drug users, who were more likely to talk about friends as 'legitimators' and suppliers. Lee claimed to have started using heroin *because* his friends were using it and without even knowing what it was.

‘Just tried it [heroin] now and then because my mates started using it, at first I didn’t know what it was but then obviously I started to figure it out, just tried it a few times, thought it was quite good.’ (Lee, early onset)

The relationship between friends’ drug use and own use may be quite strong.

Interviewees themselves invoked popular explanations such as ‘peer pressure’ in the discussion of drug use. However, the experience of direct peer pressure as described here by Nina was extremely unusual.

‘My pal was doing it, and they were all doing it so it was like peer pressure, that.

I: IN WHAT KIND OF WAY PEER PRESSURE?

Like I don’t know, people were doing it and they were like ‘ah are you not doing it and that? What’s wrong with you and that like?’ ‘Alright.’ I didn’t actually want to do it eh, I just done it for the sake of being like on the same level as one of them’ (Nina, early onset)

When asked why she thought young people used drugs, Emma first mentioned peer pressure but then said it was really more to do with boredom and the search for excitement.

‘Well I don’t know I think maybe some of them it’s ’cause of peer pressure. Em, but then like I often think it’s through boredom, because there is nothing for young people and that and I do think that it is because of that, because there’s nothing else to do and that is the most exciting thing there is to go and have a laugh with your pals and have a drink and that, I think that’s what it is.’ (Emma, early onset)

In relation to starting to use drugs, one of the things mentioned by young people was that all their friends were doing it.

‘When I finished school [at 13] that’s when I started taking things, all my pals [friends] were sort of getting into it and all that’ (Emma, early onset)

The perception that ‘everyone was doing it’ was related to young people not seeing it as a big deal.

‘Everyone was doing it [ecstasy] so I didn’t see it as a big deal, why can’t I do it?’ (Nina, early onset)

Even those who had taken heroin felt that ‘everybody’ was taking it.

I: HOW MANY OF THEM THAT YOU USED TO BE FRIENDS WITH WOULD BE USING HEROIN?

Eh, I'm not sure like there's quite a lot, like even people that I wasn't so paly [friendly] with and that they're on it and all, just everybody seems to be taking it, everybody.' (Emma, early onset)

'It's also because it's [heroin] what everybody does, I mean I don't mean I do it because everyone does, it's just what people do now. But I do like the feeling of it.' (Lee, early onset)

There was a great deal of change in interviewees' drug use, rather than just continuity. Young people tended to have reduced or increased their drug use when their circumstances changed. For example, Emma said she started using drugs when she dropped out of school. Increased drug use was also related to who interviewees were spending time with. Lee had gone through a phase during which he had used heroin on a daily basis; this was when he had fallen out with his Mum and had been spending a great deal of time with his friends who were using heroin regularly.

Another change of circumstances that may be related to decreasing drug use was the increased responsibility involved in becoming a parent. Barry said that when he found out he was going to be a father he stopped taking drugs.

'My ex-girlfriend, she became pregnant so I didn't take any drugs, I was going to be a Dad and that, I was all ready to join the army and that.' (Barry, early onset)

At the time of interview he was no longer going out with the mother of his child and had started taking drugs again, though less regularly than before. He was working during the week but going out and using drugs at the weekends, which was when he could see his baby (who was in his flat when I interviewed him).

SECTION 2: MID-TEEN ONSET

Kirk, Nick, David, Yvonne, Tracy, Natasha and Anna first started taking drugs in their mid-teens. Friends have an important role to play in explaining young people's drug use across the subgroups. However, mid-teen onset drug use was extremely strongly related to the peer group context in which they hung around. Female mid-teen onset drug users tended to portray their use as having been the result of hanging around with the 'wrong crowd'.

Dealing with things

Across the subgroups, when asked why they thought young people used drugs, interviewees (including the mid-teen onset drug users) said one of the reasons was helping them to deal with things. Drugs were used a method of forgetting about things.

‘I think everyone has their own, not depression but like their own problems or whatever and when you are on them [drugs] it’s, I know its kind of clichéd but you kind of forget about it, you are just living how you are living at the moment.’ (Nick, mid-teen onset)

I: AND WHY DO YOU THINK YOUNG PEOPLE TAKE DRUGS?

‘I think maybe to rebel against something or to help them deal with something or because their friends are doing it.

I: AND WHAT WAS IT FOR YOU?

A bit of all three.’ (Anna, mid-teen onset)

Anna said that drinking a heavily and trying drugs had been her way of dealing with her parents’ separation and the pressure she had felt from them to do well at school.

I: BACK TO THAT TIME THEN, WHAT DID DRINKING DO FOR YOU, HOW DID IT MAKE YOU FEEL?

‘Just kind of em, I don’t know just, it got rid of everything that was going on at home I guess... which was kind of difficult for me at the time so it’s just what I felt was the best way to deal with it.

I: SO HOW DID IT MAKE YOU FEEL THEN?

Well like I kept drinking, I didn’t really know when to stop so I just kept drinking until I was out of it really and I wasn’t aware, and I would totally forget the whole night.’ (Anna, mid-teen onset)

Anna had started drinking at age 14 and tried cannabis, ecstasy, speed, poppers magic mushrooms at age of 15 or 16 with her ex-boyfriend. At one point she had been using cannabis daily, drinking heavily and using ecstasy every couple of weeks. Anna was unusual in that she had not been involved in any offending. She said that the people she had hung around with were not involved in offending and even if they had been she would not have become involved because she does not feel it is right and does not get influenced easily. At the time of interview she said she only drunk every couple of weeks, used cannabis occasionally and other drugs very rarely. She was glad she had gone through that phase of experimentation at a relatively young

age. Anna's way of looking at her drug use was similar to that of the later onset drug use group.

Main and spare time activities

Across the subgroups, the extent of a young person's engagement with school or work is important in understanding their drug use and offending. It was not unusual for interviewees to have said they had truanted from school at some point. Those who had been less involved in offending tended to have truanted less and had not been in serious trouble as a result of their truanting. Those who had been involved in offending with what they called a 'bad group' were more likely to have said they truanted quite a bit. Mid-teen onset drug users tended to have wandered around town and sometimes became involved in offending when they were truanting from school. Those who had stopped hanging around with the 'wrong crowd' tended to have ceased truanting and returned to school and done well there.

Across the subgroups is also important to look at the social context or location in which drug use and offending behaviours occurred. Those who hung around and drank and took drugs in parks or on the street were likely to have been involved in offending (for example being loud and unruly in a public place, damaging property, getting into fights). The degree of involvement in offending seemed to have been related to the context in which drugs were taken or underage drinking occurred, with offending being more related to street-based contexts than legitimate leisure contexts.

Kirk started smoking cannabis at age 14 and from the age of 16 was drinking and using ecstasy regularly when he was hanging around in town with friends and getting into fights. At the age of 17 he served two and a half months in prison for breach of the peace and assault. At the time of interview he said he was smoking cannabis on a daily basis and used other drugs such as ecstasy, speed and cocaine on big nights out once every month or so. Kirk said he had started smoking cannabis during the day for something to do. Other interviewees who were also smoking cannabis on a daily basis at the time of interview worked during the day and their cannabis use was mainly an after work thing. However Kirk smoked cannabis at work and said:

'I'm always stoned'. (Kirk, mid-teen onset)

Kirk described how his drug use has changed (increased and then decreased) over time.

'Well obviously when I was younger I wanted to see what I could do, at the start I was stepping around it to see and then I dived in to see what I want, then it was seeing what I can handle, and now I don't take so much.' (Kirk, mid-teen onset)

When Kirk had been hanging around with a group of people in town drinking and using drugs he had also got into fights quite often and was imprisoned as a result of one such incident.

'Well when we were steaming we used to fight every evening, maybe a couple, some wee bastard walking long the street and we would say 'right get him'. Got in loads of fights up town cause of, well not because of drink but. Probably wouldn't have got in the fight, well I might up town, probably partly the drink..... (Kirk, mid-teen onset)

However, he said he would have done it sober:

'See as I said I would have done it whether I was completely stone cold sober or drunk or whatever, if I'm going to do something it's because there's a reason behind it.' (Kirk, mid-teen onset)

Krik said he could not feel as much when he had been on ecstasy and it made his reactions quicker.

'When you've had a couple of eckys [ecstasy] if somebody hits you, you don't feel it that's the problem, you just can't stop you are hitting away. it does I'm not being funny and I know it sounds stupid but it does actually make your reactions quicker, it does when you are on them, you just.' (Kirk, mid-teen onset)

Young people who had decreased their drug use tended to speak about this in terms of growing up and becoming more sensible.

'That's life; you have to grow up somewhere'. (Natasha, mid-teen onset)

'Enjoyed it eh, but as I've grown older I've realised that there's other ways of getting highs or whatever, enjoying yourself than taking them.' (Nick, mid-teen onset)

Young people tended to have drunk alcohol underage and interestingly some said they drunk less once they turned 18.

‘I think when you get to 18 the excitement goes away really, because you are legally allowed to drink.’ (Tracy, mid-teen onset)

Growing up was also related to increased responsibilities such as work. Young people tended to say that once they had a full-time job they could not go out as much during the week. Anna started using drugs when she was aged 14 and at the time of interview said she had calmed down a great deal and was focusing on studying and her career. Job commitments were also given as a reason why they would not use drugs in the future.

‘I sort of guess I did it younger than a lot of people did but then I got over it a lot quicker than people who now I find are just starting Uni and they are finding ‘oh you can do all this stuff’ whereas I’m sort of over it now ... I feel like I’ve got too much to think about work wise just now.’ (Anna, mid-teen onset)

However, drugs may also be used in conjunction with work, particularly at the weekends. David, who at the time of interview was drinking every weekend and taking cocaine some weekends, felt it was his right to do what he wanted to after working hard during the week.

‘I work through the week, I work hard and I earn my right to get pished [drunk] and do what I want [take cocaine] on my weekend.’ (David, mid-teen onset)

Young people tended to see alcohol as being a sociable drug which they enjoyed. David told me he could have a good time without alcohol but he preferred to get ‘pissed’ as he would have a better laugh. Alcohol and drugs may be used with the sole purpose of getting intoxicated. When talking about cocaine David said:

‘So back to square one, just get mad with it, like to party. So it’s not really that it [cocaine] does much for me, just gets me fucked.’ (David, mid-teen onset)

Young people’s use of drugs, i.e. amount used or substance chosen was partly related to the resources available to them. Theoretically, as access to resources increased so too would the ability to purchase drugs. However, when resources were low, ecstasy was seen to be preferable to alcohol as it was said to have provided a cheaper and perhaps even more enjoyable night out. Interviewees said taking ecstasy was a way of saving money as it was cheaper to have a good night out on drugs (especially ecstasy) than alcohol. David said he went through a phase of taking

ecstasy more because he did not have any money. At that time he had been in college, was not working and had recently stopped dealing cannabis.

‘Because you go out and you blast loads of money on your bevyng [drinking] when you could get one of them [ecstasy] for £2 or if my mate had some he would give me one for free or something so you would take that and you would be lucky if you spend a fiver every night. So it wasn’t a matter of ‘let’s just take drugs’ it was ‘it would really save you money eh’, it saves you money and it is a wee bit better than just drinking.’ (David, mid-teen onset)

David had been smoking cannabis heavily at one point but because he was selling it he was getting it for nothing and making money from it, which he spent on nights out.

Friends and ‘wrong crowd’

David, who said he had originally been against taking drugs, but subsequently used cannabis, suggested that he had been in some way tricked by his friends to try speed.

‘Then I went from hash [cannabis] to speed base, my mates, the way I was being brought into it, I was being tricked somehow, my mates are like ‘aye hash is only a class C, base [speed] is only a class C as well’ so I thought ‘can’t be that bad, hash is not that bad.’ (David, mid-teen onset)

David had not wanted to use speed because the idea of snorting it put him off. However, once he had swallowed speed, on a later occasion he snorted it, and in this way the taboo had been overcome and he later snorted cocaine. This quote also illustrates the central role that friends have to play in drug trying situations and decisions.

‘They [friends] were snorting it [speed], I was like just seeing that I was like ‘no’ and they were like ‘you can take it you can eat it’ so they put it in a wee skin and I was like and it wasn’t as bad.... Then eh one of my mates had coke so I was like right I’ve snorted so I might as well coke eh’ (David, mid-teen onset)

Drugs use was seen to be prevalent in society.

‘Every single person that I work with, maybe don’t buy it all the time but every single person I work with smokes fags, smoke hash, take base [speed], ching [cocaine], eckys [ecstasy] some of them will take acid [LSD] and that’s like your four main drugs. Everyone at my work takes them, most people these days that you know take them, everyone’s tried them, been there.’ (David, mid-teen onset)

Drug use may increase or decrease over time. There were those who spoke about using more drugs over the teenage years. For cannabis users this may have changed from originally having chipped in with friends to buy a bit to share, to buying their own and sometimes claiming not to have any if anyone asked.

‘When I was younger it was like you’d get a couple of yous to chip in for a wee bit and yous would all sit and say two’s on three’s on and you would all pass it about. And then we all kind of grew out of that... I’m smoking my own hash, I pay for it, I’ll smoke my own and eh at one point it went up to half ounce of hash a day.’ (David, mid-teen onset)

David first started drinking at age 15 and was involved in offending with other young people at that age. He started drinking more and going clubbing and first used cannabis and other drugs such as poppers from age 16. At one point he was using cannabis extremely heavily and went through a phase of drinking and taking ecstasy almost every night of the week. At the time of interview he said he still loved clubbing and was drinking and using cocaine at the weekends and ecstasy occasionally and continued to be involved in many fights when he was out. David said at one point he had been smoking half an ounce of cannabis a day.

In a similar way, employing neutralisation techniques, fights were commonly explained as having been engaged in for self-defence, often when on a night out.

‘Normally people come up and try to start a fight with us seriously out of the blue.’ (David, mid-teen onset)

David had been in numerous fights, mainly when he was out clubbing. He said that drinking may have had something to do with some of them, but he still would have done it if he had been sober.

I: ARE MANY OF THOSE THINGS TO DO WITH DRINK OR DRUGS?
‘No.

I: BEING DRUNK OR?

Assault, bloody hell, I think I maybe would have done worse the time with the taxi driver. All these things I would have done, I say all these things, all these things are bad like the assault but if that taxi driver had done that to me right now [sober] I would still have punched fuck out of him.’ (David, mid-teen onset)

First drug use seemed to be about having been offered drugs and wanting to try them because they thought they looked good or they were jealous of friends or

curious to see what they were like. Although her friends were using ecstasy and speed Yvonne did not take drugs at first.

‘One night I got a bit jealous because I was the only one that was actually quite sober so I took a quarter of an ecky [ecstasy] and that was the start of it.’ (Yvonne, mid-teen onset)

Yvonne started drinking alcohol and smoking cannabis at age 13. Between the ages of 14 to 16 she was smoking cannabis, hanging around drinking in the street and shoplifting. At age 16 she first tried speed, ecstasy and other drugs. Her drug use and offending were related to the peer group context in which she spent her time. At the time of interview she was smoking cannabis as part of her daily life and using speed or other drugs occasionally on nights out. Those interviewees who used drugs more often tended to view their drug use as being a bigger part of their life. For example, Yvonne who smoked cannabis all day every day at the time of interview was not working and saw smoking cannabis as part of her daily life. She said if she did not have it she became moody.

‘Hash [cannabis], that is very important to me because I’ve smoked it for so long now. You see when I don’t smoke it I get really moody, my mum says that to me. It’s actually quite a bad thing because I don’t mean it but I just get really moody I think if I’ve not had it in a couple of days.’ (Yvonne, mid-teen onset).

At the time of interview Yvonne said she was smoking three or four joints a day but she put quite a good bit in and saw the fact that she was using half an ounce of cannabis a week as quite bad. When I asked Yvonne about her experience of school she told me she had bulimia and was paranoid about her weight. She spoke about how she used speed to lose weight. Her use of speed was linked to her body image and eating disorder.

Increased drug use was also related to who interviewees were spending time with. Anna said that the phase when she had been using a great deal of drugs had been when she was going out with her ex-boyfriend who

‘had a very easily accessible amount of drugs’ (Anna, mid-teen onset)

Mid-teen onset drug users said the fact that they started using drugs was to do with hanging around with the ‘wrong crowd’.

‘That’s when I started to get into drugs and stuff like that but I never ever got addicted to them or anything like that, I just got in with the wrong crowd.’
(Yvonne, mid-teen onset)

‘E’s [ecstasy] were with friends, a bad group of friends that I got into.’
(Tracy, mid-teen onset)

Young people like Tracy were willing to try almost any drug to see what it did.

‘I used to just really try everything that was on offer apart from heroin and stuff like that, I would ever go near any of that but whatever my friends had I would try to see what it does.’ (Tracy, mid-teen onset)

Young people who spoke about trying drugs when they were hanging around with a the ‘wrong crowd’ tended to have said they had been taking more drugs when they had been hanging around with the ‘bad group’ and had often reduced or stopped taking them since.

‘No it was just when I was with them that I did, not because I felt I needed to or anything, just because I wanted to go out with them and I never carried it on and I wouldn’t really try anything like that again.’ (Tracy, mid-teen onset)

Tracy was involved in drinking, offending (being loud and unruly and fighting) and using drugs such as cannabis, speed and ecstasy between the ages of 14 and 16 when she was hanging around in the street with the ‘wrong crowd’. She attributed her mid-teen drug use and offending to the ‘bad group’ and said she stopped offending when she stopped hanging around with those people. She did not try other drugs such as cocaine and magic mushrooms until age 17 or 18. At the time of interview she said she drunk regularly and took cocaine on big nights out about once a month.

Tracy said that it had been when herself and her friends were hanging about the streets drinking that they got into fights; they had not got into trouble when they were taking drugs such as ecstasy and going to pubs or night clubs. It seems to have been the social context in which the drinking or drug use took place that was important.

As well as relationships with parents being important in explaining drug use and offending, young people’s involvement in drug use and offending may have an impact on the quality of parent-child relationships. Young people’s behaviour itself may be part of the reason why their relationship with their parents was fraught. Tracy said that hanging around with a ‘bad group’ had led to a deterioration of her relationship with her parents, though the relationship had improved since she stopped

hanging around with them.

Natasha started drinking and using drugs (such as cannabis, ecstasy, speed and cocaine) and was involved in shoplifting and fighting between age 15 and 16 when she was hanging around with a group of people. She said she had grown up and stopped offending when she no longer hung around with the 'bad group'. At the time of interview she said she drunk regularly and took cocaine sometimes on nights out and cannabis and ecstasy very occasionally. Interestingly Natasha said that once you have tried a drug 'you're hooked'; but clarified this by saying she did not mean that she was addicted, but that once you have used a drug the temptation is always there to use it again. Natasha directly attributed her violence to alcohol.

'Fighting's always just because you're drunk.' (Natasha, mid-teen onset)

Across the subgroups, young people who said they had committed acquisitive crimes in order to get money for drugs tended to have done so occasionally when they were younger and had not been using drugs dependently at the time. They had committed such offences (for example shoplifting) on many other non drug-related occasions as well. Natasha said there had been a time when she was younger where she had shoplifted to get money for drugs.

'Well when you are stealing to get money for drugs it's obviously related.'
(Natasha, mid-teen onset)

Yvonne said she and a couple of friends had stolen from one shop and sold to another on a number of occasions to get money for cannabis when they were younger. However, she said she did not see the shoplifting and drug use as going together because she had not been addicted to anything so she never really had to go out and steal.

When asked why they thought young people used drugs, interviewees tended to have said that young people used drugs because their friends did it. As a result of their friends using drugs they may feel left out if they did not use drugs. They may decide to use drugs because from what they have heard from their friends they think it sounds good and they think they will enjoy it. Alternatively they may think 'if my friends are doing it why can't I?'

'Why do they use them? I think with me, because all my friends were doing them, you think you can do them, but it's not to be cool or anything like that

but if they are doing it you think to yourself 'why can't I do it?' and you do it, that's probably the reason.' (Natasha, mid-teen onset)

Peer influence or 'friends egging them on' was not commonly said to have had an impact on their offending behaviour. Hanging around with the 'wrong crowd' was one of the explanations given for involvement in offending as well as drug use. For example, Tracy said she had gone through a phase when she had been hanging around with the 'wrong crowd' taking drugs, drinking, offending (damaging property and fighting) and getting in trouble with the police.

I: AND WHEN YOU SAY 'WRONG CROWD' WHAT DO YOU MEAN?
'Eh just people who aren't very nice, friends, well ex-friends that I shouldn't have got involved with. They were quite into drugs and things, stealing and things like that, em trouble.' (Tracy, mid-teen onset)

Interviewees also mentioned that they had stopped offending when they had stopped hanging around with the 'bad group'.

'It just got to the stage that I just didn't want to be involved with it so I just lost contact with all of them, went back to school [laughs].' (Tracy, mid-teen onset)

Nick was involved in some offending with people he used to muck around with. He said they were not good friends, just people he met. Some fighting seemed to be gang related with young people going fighting in groups to different places around Edinburgh. Nick said he started drinking in parks at around aged 14 or 15, using cannabis aged 15, and other drugs (such as ecstasy and speed) from the age of 16. He was involved in some offending around that time as well. Between 16 and 18 he spent some time going to clubs and pubs with older people from a local young team and became involved in fights with young people from other areas of Edinburgh. He had been using cannabis on a daily basis and drinking a good deal more and using ecstasy and other drugs at the weekends when he had a job, but at the time of interview said his drug taking and offending had reduced. Nick said that if someone was provoking a fight he was more likely to get involved if he had been drinking.

For many recreational users the regularity by which drugs were used also depended on how often they were offered them. Easy availability was another reason interviewees said young people used drugs.

‘I mean you are just enjoying yourself, you are enjoying the experience and there’s not that many other things that you can enjoy. Well I’m not talking about on the whole, but like at that age, they are probably easier to come by.’
(Nick, mid-teen onset)

Young people described using drugs occasionally, i.e. less than monthly, for big nights out, on special occasions or ‘once in a blue moon’. Occasional use of drugs tended to be described as being for special occasions, which often meant club nights, music events, birthdays etc. As Kirk said:

‘If I go out to something good then I’ll get some’ (Kirk, mid-teen onset)

A couple of interviewees said they had made decisions to try magic mushrooms based on their legal status. Tracy said she had tried them because the law was going to be changing in Scotland and Kirk said he tried them on a trip to Amsterdam when they were being sold legally in a shop.

‘Well I only tried magic mushrooms cause I was in Amsterdam and they are sold there in a shop, legally selling you so it’s like I’ll have that [laughs] you know what I mean? Well it doesn’t actually make you, but they’ve got it in proper boxes and it tells you how they make them and what they do to you so it was like yeah.’ (Kirk, mid-teen onset)

Tracy spoke about not really using ecstasy anymore because of the risks involved.

‘I don’t take that now, I don’t like it and you know you learn all the risks and stuff like that, and why take one silly little pill if it can kill you and I don’t really bother with that now at all.’ (Tracy, mid-teen onset)

Yvonne said she had been against drugs, but took them because her friends looked like they were having a good time. However, she said she would not try heroin because she was scared she would like it.

‘But I think see as well I’m scared of trying heroin because I’m scared I’ll like it. That’s why people get addicted to it because they like it too much once they’ve taken it. So I think that’s why people take it because they like it too much, and that’s why they get addicted to it. But I’ll never let myself go that far.’ (Yvonne, mid-teen onset)

Kirk said that as he tried each drug he thought it was great and he would not want to try heroin for that reason.

‘I know for a fact that heroin would be amazing but I’ll not touch it but that’s the way it’s going eh, it’s just the worst are the best but it’s fucked up.
I: HAVE YOU EVER BEEN OFFERED HEROIN OR WOULD YOU EVER BE TEMPTED TO TRY IT?

No, if they offered it to me I would never try it, I wouldn't put myself in a position to be offered it, not because I don't trust myself eh, I know I would never touch it.' (Kirk, mid-teen onset)

Young people said they would simply not try certain drugs, especially heroin because it was seen to be a dirty drug. They tended to have voiced distaste for heroin addicts ('junkies') and said they would not even want to talk to anyone who takes heroin. The 'I don't want to end up like them' attitude seemed to be a reason for not using certain types of drugs or not using them to excess. Those who had seen what heroin had done to people around them often associated the realities of heroin with acquisitive crime. Yvonne's ex-boyfriend had begun using heroin and she said:

'I don't want to turn out like that' ... he's on heroin, he's stealing for drugs, shoplifting.' (Yvonne, mid-teen onset)

Yvonne's Dad had been taking heroin at one point and had spent a year in prison because of it.

'So I think that is what has made me never want to do it, with what's happened to my Dad. And my Dad's totally off it now but that's split my family up a wee bit but things are alright now.' (Yvonne, mid-teen onset)

SUMMARY AND CONCLUSION

Early onset drug users tended to have had extremely chaotic home lives and discordant relationships with parents at an early age and were more likely to have spent a significant amount of time unsupervised. In the context of a lack of engagement in family, school or other structured activities they made sense of their drug use and offending as having been their reaction to feeling bored. They said they used drugs and offended because perceived there to be 'nothing to do'. Early drug use was strongly related to offending. For those who are involved in gangs, their offending, drinking and drug use tended to have been intertwined with the gang lifestyle. They seemed to have been more likely to have been subject to direct peer influence or modelling than other young people.

Mid-teen onset drug use was extremely strongly related to the peer group context in which they hung around. Young people came across drugs through friends

using them and wanted to try them themselves to see what they were like. It was particularly female mid-teen onset drug users who tended to portray their use as having been the result of hanging around with a 'bad group'. Offending occurring in conjunction with mid-teen drug use was closely related to the outdoor street-based contexts in which drinking and drug use were situated. Reduced involvement in drug use and offending were related to changes in friendship group, location of spare time activities or increased responsibilities.

Early onset drug use can be understood with reference to the paradox presented by weak social bonds. The contexts in which time is spent with friends are important in understanding mid-teen onset drug use. Early and mid-teen onset drug use went hand in hand with offending, whether seen as being related to having 'nothing to do' or hanging around with a 'bad group'. Drug use and offending tend to occur in similar contexts, have similar meanings and explanations. In contrast, as we will see in the next chapter, later onset drug use was more likely to have been portrayed as an enjoyable and legitimate lifestyle choice.

CHAPTER 8: DRUG USE AS A LEGITIMATE LIFESTYLE CHOICE

INTRODUCTION

So far qualitative findings have shown that drug use and offending can have similar meanings and explanations. The two behaviours are quite closely related for both early and mid-teen onset drug users. However, quantitative findings have suggested that later on in the teens drug use may represent something different. This chapter explores experiences of later onset drug users (section one), and those who had only used cannabis (section two). There will also be a further discussion of explanations for drug use and offending and the relationship between them (section three) followed by a conclusion. Findings presented here show that later onset other drug (i.e. other than cannabis) use tends to be portrayed as a legitimate lifestyle choice, an important life experience quite separate from any involvement in offending.

SECTION 1: LATER ONSET

Stephen, Marie, Rachel, Mike, Gary, Liam, Laura, Tom and Jack began using other drugs at the age of 17 or older. Although young people across the subgroups spoke about enjoying using drugs, it was those who had begun using other drugs later in the teenage years who highlighted enjoyment as central to explaining their use of drugs. These young people said they used drugs to have a good time. They saw their drug use as a form of legitimate lifestyle choice, an important life experience. These young people tended to say they were responsible and careful in their use of drugs. Later onset drug use was not necessarily connected with offending.

Family context and lifting mood

Later onset drug users tended to be relatively well socially bonded. Those who had not been involved in offending were the least likely to have had any family problems. They tended to have had good relationships with their parents and had not experienced major stressful life events. It was not unusual for interviewees to have experienced parental separation. Those whose parents had separated at a very early age tended to have adapted well to this. However, those whose parents had separated during the teenage years did speak about finding it hard. Of those, some said they had used more drink or drugs while trying to cope with their parents' separation. However, Laura said that although she had drunk more at times in her life when she had been finding things difficult, using more drugs was to do with opportunities and curiosity.

'I don't think anything else has corresponded to 'I'm having a bit of a mixed up time so I'm going to take lots of drugs' or anything like that, it's just actually more been opportunities and being exposed to things, and just curiosity.' (Laura, later onset)

Young people did say drugs were a way of lifting mood and forgetting about something you were bothered about (like falling out with someone). When they went out and took drugs they forgot about their problems for that night. Gary said ecstasy

'Knocks all your problems away for that night' (Gary, later onset)

For Rachel, spending time with friends was important and she felt quite lonely and depressed without them. Drinking and drug use formed the central part of her social life.

'I was also quite depressed at the start of last year because of being in my house on my own so much during the day, like I didn't realise how much I needed other peoples' company... I would be sitting there and I would feel like the walls were closing in on me and I would feel like I had to get out of the house... I hated being in the house on my own so I think that's why the amount I went out in the weekends and during the week escalated because I was just trying to get out and see people as much as possible and forget about being in my own house.' (Rachel, later onset)

Stephen said he started smoking cannabis because he was having a bad time; his granddad had died, his girlfriend had left him and he had been getting a great deal of grief at work.

‘I was like right I’m going to go down and give this [smoking cannabis] a bash’. (Stephen, later onset)

Stephen had begun drinking at 14, had been involved in some extremely minor offending, at age 16 started using cannabis and from the age of 17 first tried ecstasy, speed and poppers. At the time of interview he was smoking cannabis daily (which he said he enjoyed greatly), drinking a few times a week and using ecstasy and other drugs occasionally. Although Stephen said cannabis was a big part of his life and he enjoyed it, he viewed his daily use of cannabis as a choice, he liked it but could live without it.

I: ‘DO YOU FEEL YOU NEED THE HASH [CANNABIS]?’

‘No it’s just my choice, I like to do it so I do it eh, I don’t have any constraints.’ (Stephen, later onset)

Here Stephen described himself as an individual with the ability to choose to use drugs and said he was not constrained by anything. This highlights the paradox of social bonds where in this case the capacity to act comes with being bonded.

Main and spare time activities

Those who had drunk at home were far less likely to have engaged in offending as compared to those had drunk outdoors in public places such as parks or streets. Later onset drug use tended to have occurred in more legitimate leisure contexts, i.e. pubs and bars, when young people were approaching or had reached the legal age for purchasing alcohol. Drug taking in these legitimate leisure contexts appeared to have been less related to offending than the drug taking of early and mid-teen onset users, which tended to have been street based.

Marie spoke about her earlier involvement in offending by employing explanations similar to those given by earlier or mid-teen onset users, but her later use of other drugs such as ecstasy occurred in a different context. Marie offended, drunk and used cannabis between age of 14 and 15 and did not start using other drugs until age 17. Marie’s family situation seemed to have been relatively harmonious. However, she had not been effectively supervised by her parents, whom she said had palmed her off with money because they were never in as they were working all the time. She saw her mid-teen hanging around and offending with a group of young people as having been related to having nothing else to do. She had

also been in drug and football-related fights. At the time of interview she said she drank and used cannabis on a weekly basis and used other drugs occasionally. Young people commonly employed neutralisation techniques when explaining their involvement in offending.

Marie said herself and her friends hung and around offended and got in trouble even when they were not drinking, because it was something to do.

I: WAS IT MAINLY WHEN YOU WERE DRINKING THAT YOU'D GET IN TROUBLE?

'No, we just used to do it all the time for something to do or to get the police to chase you or [laughs], there's nothing to do here so.' ... (Marie, later onset)

When asked how important offending (fighting, dealing cannabis) was in her life she replied:

'Well we used to all think we were really cool because we used to go fighting and do drugs and that. I just think it's cause there's nothing to do here as it is.' (Marie, later onset)

Marie had obtained her cannabis for herself through selling it to others and had beaten people up if they did not pay.

I: YOUR DRINKING AND USING DRUGS HOW WAS THAT AT ALL RELATED TO ANY OF THE CRIMES THAT YOU DID?

'The drugs and the fighting were related, that's cause people weren't paying so you have to kind of show them that if they don't pay you're going to give something back.' (Marie, later onset)

At the time of interview she said she was still getting into fights when she went to watch the football.

'You just have to sometimes if they come for you first, just go and hit them back.' (Marie, later onset)

When asked whether she liked fighting Marie replied:

'No, it depends, not really no. I don't get a, sometimes you can get a buzz out of it in a kind of way when it's like football orientated.' (Marie, later onset)

The main activity young people were engaged in was related to their drug use across the subgroups. For example, this was due to lack of resources or increased stress. Young people who were not working (usually studying) pointed out that it was often cheaper to use drugs than drink. They also mentioned that ecstasy was better than being drunk and they were more aware of what they were doing. These

interviewees presented the fact that ecstasy was cheaper and perhaps even better than alcohol as a substantial part of the reason why they used the drug.

‘Sometimes it can be cheaper to do drugs, like you could spend a tenner [£10] on a night out on alcohol and sort of maybe it’ll last you one night, you possibly didn’t have that good a night and you are probably quite ill the next day. You can spend a tenner on pills [ecstasy], you get 3, that’s 3 nights if you space it out and you don’t really feel that bad the next day. So depending, if you are short on cash or whatever.’ (Rachel, later onset)

‘You know it [using ecstasy] saves me money as well ’cause it stops me drinking.’ (Mike, later onset)

Conversely to working resulting in decreased drug use, it could also be a reason to use drugs more. Those interviewees who had used cannabis after work on a daily basis tended to have said they used it to relax, often after a stressful day.

‘Just chills you out really, I mean you can smoke it anytime but the best time is when you’ve had a stressful day at work or you are arguing with your folks or something like that and before you have smoked it [cannabis] your eyes are red and you are seeing blood and after you have had a joint or whatever you just can’t be bothered arguing, I mean it doesn’t matter what’s happened, you just sit there and just while you’ve got a joint in your hand you don’t bother about the world and the world doesn’t bother you quite basically.’ (Mike, later onset)

‘Well that’s good after work eh, it [cannabis] just relaxes you. You get in, you’ve been getting it tight all day, sweating, grafting [working] really hard, you get in, have your tea, have a joint and everything’s alright’. (Stephen, later onset)

Different groups of friends

Unsurprisingly, young people across the subgroups tended to have said that their friends’ drug use was similar to their own. Those who said they had some friends who did use drugs and some who did not tended to have hung around with various different groups of friends. Those who said their friends were more involved in offending than they were themselves tended to have stopped hanging around with those people. They often portrayed themselves as having been on the sidelines and less involved in the group behaviours. Many, especially later onset drug users who had offended, said they were no longer friends with the people they had hung around with and offended with when they were younger. For example, Mike said he had stopped hanging around with a group of people after he saw them commit a crime he

did not approve of. Others had had the same friends all the way through. For non-offenders these friends may have acted as protective factors.

Later onset use of other drugs (age 17 or older) may have been preceded by an earlier phase of offending (age 14 to 16). Stephen, Marie, Rachel, and Mike, Gary, were involved in mid-teen offending (along with teen alcohol use and sometimes cannabis use) before later drug use. Rachel had been involved in petty offending when she was hanging around with what she described as a 'chavvy group'. Gary hung around for a short while with some people who stole cars and were from another area.

Those young people who were later onset other drug users, but had engaged in offending during their mid-teens, tended to depict their offending as having been a by-product of hanging around with the 'wrong crowd', whereas their later drug use was portrayed as a legitimate part of their enjoyment of leisure time. Interestingly this 'wrong crowd' explanation echoes that of the mid-teen onset drug users. For later onset other drug users who had engaged in mid-teen offending, offending and drug use represented quite distinct behaviours, and were very separate phases in their lives, often engaged in with different groups of people. For example, Rachel had drunk alcohol, smoked cannabis and been involved in petty offending between the ages of 14 and 15 when she had been hanging around with a group of people. She said she had not offended since she stopped hanging around with the 'wrong crowd' and did not try other drugs (ecstasy, speed and cocaine) until the age of 17 with a new group of friends. She did not see her offending and drug use as being related.

'The circumstances are so different it's sort of incomparable' (Rachel, later onset)

At the time of interview she said she really enjoyed going out and was drinking heavily, using ecstasy on an almost weekly basis and cocaine occasionally.

Similarly, Mike said he had been drinking and offending with a group of people in his area from age 14 to 16. He stopped hanging around with them and offending and started smoking cannabis with some other friends. Young people who had committed offences whilst under the influence tended to have said that they had done so when they had been drunk, not under the influence of drugs.

I: AND DO YOU THINK THAT'S IN ANY WAY RELATED TO ANY DRINKING OR USING DRUGS?

'I think it might, some of it could be related to drink because you do stupid things when you are with your mates and you are drunk, but I don't think it's related to drugs. Because either drugs make you hyper and you can't think about, well you've got about one thought in your head and that's to jump about going crazy, or if you are on weed you really can't be bothered running away from the polis, you just want to sit somewhere quiet and get stoned.'

(Mike, later onset)

Later, aged 17 or 18 Mike tried other drugs (ecstasy, speed, cocaine and heroin) with a new group of friends.

I: WHAT ABOUT THE TIMING THAT ANY OF THOSE HAPPENED LIKE EITHER DRINKING OR TRYING DRUGS AND OFFENDING OR GETTING IN TROUBLE?

'Well the drinking and the hanging around came hand in hand because we were underage and your Mum and Dad and that didn't want you to drink so if you were out on the streets you were obviously going to get the police to you and stuff like that because of all the neighbours and stuff like that. So I mean they come hand in hand, but I mean the drug taking, like with weed we were hanging about on street corners and stuff, a small group of us, actually we were sitting in a field down there, out of sight from anyone, cause we didn't want any notice or anything, we just sat there in our own wee group, had a giggle and that was it. But the other drugs, that was more, that came after, when I was in friends houses and when I had grown up a bit and stuff like that, yeah I mean that wasn't tied into trouble making or anything like that.'

(Mike, later onset)

Gary had been drinking, using cannabis and offending between the ages of 14 and 15. In relation to offending, Gary said that he had been curious about what other people were doing and that being a passenger in a stolen car had been a big adrenaline rush. The explanations he gave for his mid-teen offending were similar to those given in the previous chapter. He said that drink had not been behind the offences himself and his friends had committed when they were younger.

'When you never had any money to sort of, you'd be bored kicking your feet about the streets, there'd be nothing to do. So I wouldn't say we'd have been drinking or anything like that.'

(Gary, later onset)

Gary then stopped hanging around with the people who were involved in offending and did not try other drugs until age 17 or 18 with a new group of friends. He saw his use of drugs as being about having a good time. At the time of interview he was drinking four or five times a week, using cocaine most weekends and ecstasy occasionally on big nights out. Across the subgroups, interviewees tended to perceive drug use as being extremely prevalent. Gary described the extent to which he felt the

prevalence and accessibility of drugs had increased in recent years.

‘A lot of older folk don’t realise the amount that people of our age are doing it [ecstasy]. They don’t have a clue, it’s changed so much it’s unbelievable.’ ...

‘The amount of people that are taking coke [cocaine] nowadays is unbelievable... We’ve been in to the pub and there’s been like guys that are about fifty year old and you see them taking it, snorting lines in the toilet, but a lot of people do that now and a lot of people don’t realise that at all. It’s because I would say in the last two years the drug has been so much more easily accessible and it is coming down so much in price.’ (Gary, later onset)

When asked about how or why they first started using drugs young people often called upon and rejected the popular ‘peer pressure’ explanation. Gary said that he had not been pressurised into taking ecstasy by his friends who had begun taking it a few years before he had. During the interview, prior to this quotation, he had mentioned his curiosity about ecstasy, having seen his friends using it for years.

‘I didn’t care what they done, it’s their choice, they didn’t pressurise me to do it or anything like that.

I: YOU GOT CURIOUS?

Yes, as a lot of people do now’ (Gary, later onset)

When the peer pressure explanation had been rejected by young people, starting using drugs was commonly said to be more about wanting to take a drug because they were curious about what their friends were doing.

‘A lot of mixed variation age groups that muck around so the older guys and girls. You think ‘oh that looks cool, I’ll try it’. And it sounds really stupid and peer pressure and that but it’s not really peer pressure, everyone says it is but you are always wondering what it’s like all the time.’ (Gary, later onset)

‘It’s not been through peer pressure like that it was just something I think just being curious and it was like ‘why not?’ (Laura, later onset)

‘Well I like to experiment quite basically and I wondered what it [speed] was like so I got them to make me a wee line’ (Mike, later onset)

Later onset drug users had often begun using drugs after their friends. Exposure to other people using drugs may alter young people’s perception of risk. In an insightful comment Laura described how she had gone from being against ecstasy to trying it having been exposed to people taking it.

‘Thing is I used to be really sort of against ecstasy, I remember when I first found out my brother had taken it I was like ‘how could you do that, you

could take it and just die', and then the more you are exposed to things around other people the more it does seem normal and then the more you might even, subconsciously it enters into your brain that you might in fact try it yourself one day.' (Laura, later onset)

Young people tended to say they first tried drugs because they were offered them and thought they would give it a try. In addition to curiosity, drug trying was also dependent on the opportunity arising.

'I think it's curiosity or interest or just also to do with opportunity. The drugs that I've tried I might not have tried them if they might not have been about, I never did seek them out.' (Laura, later onset)

Later onset drug users seemed to engage more with the concept of risk than other subgroups. Those who had been unsure about taking a drug, (for example they were scared of taking ecstasy because it can kill people) tended to feel differently once they had tried it themselves. Rachel said the more she took ecstasy, the more confident she felt and she stopped worrying about the possibility of dying. Laura weighed drug taking risks up in context of everyday risks.

'You know my attitude to drugs has changed, me I think E [ecstasy] it is still dangerous because obviously there has been quite a few deaths for it and thing is you don't know you could just take it and just die and that's what's happens, but as we know you can die from walking across the street and it's just taking a risk because it's not a big risk at all there's only a small chance of that.' (Laura, later onset)

It was not unusual for interviewees to find it hard to say how often they used drugs. In particular, those who said they did not usually go out and buy certain drugs but would have some if it was there and they were offered it, found it was hard to say how often they used them. For example Laura said:

'It's [speed] never something I seek out, none of these things are, it's just if it's there and I quite fancy it I might have a line or not.' (Laura, later onset)

The use of drugs 'almost weekly' i.e. a few times a month may also be described as being for big nights out. For example, Mike said:

'Drugs are only sort of for special occasions... Ecstasy are for crazy nights out, every time there's a good night out.' (Mike, later onset)

On normal nights Mike said he just gets drunk, though at the time of interview he said he had recently been using cocaine almost every weekend.

When young people's circumstances, for example the people they were

spending time with, changed, their drug use may have reduced or increased. Liam highlighted the role that other people can have on influencing the way young people look at a drug. Liam said that in his experience although some people who dealt cannabis were good people, others were not and they would try and get you to try other drugs.

‘There are some weird characters and they will try and push things on you and you won’t even think about it at the time but I mean if someone can make it seem that harmless you will go for it.’ (Liam, later onset)

Liam used alcohol and cannabis from age 14 but did not try other drugs until later. At age 17 he first tried ecstasy, speed, magic mushrooms and cocaine. At one point he had been smoking cannabis daily and using ecstasy every weekend. He said that between the age of 17 and 18 he had used too many drugs and had also been involved in some offending. Rather unusually for the later onset drug use group, Liam’s short-lived involvement in offending had occurred alongside his drinking and drug use. At the time of interview he was drinking weekly and using other drugs occasionally.

Across the subgroups young people did say they had been loud and unruly in the street when they were drunk. This was either when a group of them were hanging around drinking in the street when they were younger, or more recently when they were drunk coming home from a night out. Generally they said they would not have been as loud if they had not been drunk. Less commonly, they mentioned that they had damaged property when they were drunk. Liam said he would never have smashed car windows etc. sober.

‘You do a lot of stupid things especially when you’re drunk....It’s not like everyday I went up and tried to vandalise something but every now and again when I got really, really drunk.’ (Liam, later onset)

On occasion male interviewees spoke about fighting and being under the influence of drugs. When young people spoke about being in fights when they were on drugs it was more about the effects they felt the drug had on their experience of the fight, whereas when they spoke about being drunk this tended to have been in relation to getting involved in fights in the first place. Liam talked about not having felt anything when he was in a fight on speed and having done more damage while on cocaine. However, it was he who emerged badly injured.

‘Well you’re not always in control of everything that you do, like with anything that you take, it’s going to affect you, effect your judgement.... If you ever get in a physical fight with anybody, there’s times if you take enough [speed] you can’t feel anything at all, so you wake up the next day and you’ll be covered in bruises all broke’

‘It [cocaine] can make you really violent, I’ve noticed with ecstasy if someone’s bothering me or starting to get in a physical fight with me I can easily say no back off but with cocaine I mean depending what state of mind you are in, if you are in a good state of mind and someone starts on you, you could feel that you are in the right that is going to affect your judgement so you are just automatically defensive, it can make you feel a bit powerful at the time and even if you get injured you have probably caused more damage.’ (Liam, later onset)

Enjoyment and ‘legitimate experimentation’

Later onset drug users pointed to the pleasures of drug use and its role in their social life. Perhaps unsurprisingly, but significantly, sheer enjoyment was cited as a central reason why young people took drugs. For Mike, this was the main reason for taking drugs. At the time of interview he said he was smoking grass regularly, drinking every weekend, using cocaine almost weekly and ecstasy for big nights out.

‘Why do I take them? Because I enjoy it, em that’s about it really, I can’t say much else than that.’ ...

‘I quite enjoy it [ecstasy] but then there is the other side to it, I mean there is with all drugs, but you hear about it quite a bit with eckys [ecstasy] but there’s no way you are going to give up something you enjoy quite basically. I enjoy taking them.’ (Mike, later onset)

When asked why he thought young people used drugs Gary replied:

‘Em, I don’t know, to have a good time and out of curiosity. The first time out of curiosity and then after that it’s probably to go out and have a good time.’ (Gary, later onset)

Interviewees, especially later onset drug users, commonly said they took drugs to have a good time. They enjoyed taking drugs and had really good nights out. Later onset drug users tended to have first taken other drugs in sociable and legitimate leisure contexts like friends houses; parties; clubs; or music festivals rather than outdoors. These young people, (for example Rachel who said she loved going out), tended to have said they enjoyed taking drugs and it was a good laugh and although they could go without it they would not be enjoying themselves as much.

Curiosity and a desire to try things were part of the explanations given by young people across the subgroups for starting to use drugs. However, it was later onset drug users who tended to portray their drug experimentation as legitimate. They spoke about embracing the fact that they were young and saw trying drugs as an important life experience.

‘Just that curiosity about something, but then you just decide, I mean you do it a bit, and you decide whether it’s for you or not.’ ... ‘So I think you should embrace the fact that when you are young that’s really the time if you want to do anything like.’ (Laura, later onset)

‘Having tried them I think that is quite important because it’s more life experiences basically.’ (Mike, later onset)

Laura had used alcohol and cannabis from age 14 but did not try other drugs until later. From age 17 Laura had tried ecstasy, speed, cocaine and ketamine. She said she did not overindulge in drugs and saw her drug experimentation as having been an important life experience. She had not been involved in street-based offending but had stolen items of clothing from shops on a few occasions. At the time of interview she said she drunk a few times a week and used cannabis, speed and cocaine occasionally if offered. She employed neutralisation techniques when explaining her involvement in offending.

‘I’ve poured so much money into H and M’s and Top Shop and every high street girls fashion shop that I deserve something back.’ (Laura, later onset)

Tom and Jack both started trying other drugs from the age of 17, though they had started drinking and smoking cannabis before that. Neither of them had been involved in offending. Tom had gone through a phase when he smoked cannabis on a daily basis, but at the time of interview said he was drinking moderately, using cocaine every few weeks and cannabis and ecstasy occasionally. At the time of interview Jack said he was drinking and smoking cannabis a couple of times a week and using ecstasy and speed occasionally. Their experimentation with drugs was portrayed as being an important life experience.

‘We didn’t do it to say let’s try and be cool. We thought let’s be a bit open minded here and see what’s going on, a bit of life experience.’ (Tom, later onset)

‘I don’t know, something to, just well you only live once, you have to try it at least once in your life, eh.’ (Jack, later onset)

Later onset drug users were more likely to say they were sensible with their drug use. It seemed to be later onset drug users, particularly non-offenders, who did their own research and talked about being careful when taking drugs: i.e. only taking one ecstasy; not taking it when drunk, drinking lots of water; doing it with people they felt safe with. They highlighted the fact that they used drugs responsibly.

‘I never overindulged in drugs’ (Laura, later onset)

‘I never smoked it stupid’ (Tom, later onset)

Tom did not like magic mushrooms because he could not control the experience. When these young people spoke about using a substance heavily they tended to be referring to their drinking. Rachel said she did not take anything in excess enough to need to cut down. With regard to his Wednesday night drinking Liam said

‘I go a bit crazy’ (Liam, later onset)

Interviewees sometimes said they found it hard to say how much they drunk.

‘I loose count nearly every night’ (Mike, later onset)

At the time of interview Rachel said she drunk:

‘A lot if I can’ (Rachel, later onset)

Views regarding the relative harm of a drug were explained by contrasting it with other substances or risks taken in life. Young people did not tend to see using cannabis as being a big deal.

‘Me and all my mates see it [alcohol] as more of a poison than weed [cannabis]. Because you know when you are drunk you can hardly walk or see let alone make conversation. That just never happens when you are smoking [cannabis].’ (Mike, later onset)

Interviewees also expressed similar views about ecstasy not being that harmful.

‘If you take it in moderation I suppose it can’t do any more harm than anything else, I mean everything has got a label on it that says ‘do not exceed’ so I don’t see why it [ecstasy] can’t be the same’ (Liam, later onset)

In relation to ecstasy, young people tended to say when they took it they enjoyed their night; felt happy, excited, ‘loved up’ and awake. They were smiling, dancing and had good feelings (euphoria, rushes or tingling). Young people who used speed

said they were chattier, it gave them more energy and they could stay awake for much longer. Those who enjoyed using cocaine said it was amazing; it felt good in terms of excitement, happiness, energy and confidence and there was no comedown. Those who had used magic mushrooms tended to say they laughed a great deal and less commonly got visuals.

In addition to the positive and enjoyable elements of drug taking, young people (across the subgroups) also spoke about the negative effects. In relation to alcohol these included: the expense; feeling sick; being teary or obnoxious; getting into trouble; and hangovers. Bad effects of ecstasy included: talking nonsense; hugging strangers; bad comedowns; and aching bones. Negative experiences with cocaine involved: the expense; not having as great an effect as was expected; talking rubbish; being obnoxious, arrogant or violent. Mike said his experience with ketamine had been horrible.

‘Just cabbaged, can’t do anything, I mean you can, you know you can but your legs sort of don’t want to respond to your brain and stuff’ (Mike, later onset)

Hearing voices, hallucinating, and a sore head were mentioned in relation to solvents. Using valium was described by one interviewee who hated it as feeling like melting into the ground.

In contrast to the influence of enjoyment, dislike of the effects drugs were having and becoming ‘fed up’ with them were cited as reasons for decreasing drug use or desisting entirely. This may have involved not liking or having had a bad experience with certain drugs. For example, some young people said they no longer used as much ecstasy or speed as they used to because they had terrible comedowns. Some had used cannabis on a daily basis, but had subsequently cut down because it had made them feel lazy and tired and they had wanted to go to sleep all the time. At the time of interview one interviewee said that he smoked less cannabis than before because when he had smoked too much it had messed with his head and made him paranoid. Young people also reduced or stopped using drugs because they could not be bothered anymore. They had become sick of it and no longer saw the point. Alternatively young people said they felt that it had become ‘all too much’ or they did not need it anymore. Rachel described how she had cut down on her alcohol use.

‘I cut down on alcohol considerably after 2003 because in 5th year I drunk like a lot every weekend and I, it was ridiculous I couldn’t remember anything that I’d been doing and I was always sick and I was so hung-over like every Saturday and Sunday morning and it was just getting a bit ridiculous, and people were starting to label me an alcoholic, in good spirit I hope, em so I sort of cut down quite a lot.’ (Rachel, later onset)

SECTION 2: CANNABIS ONLY

There was also a group of interviewees who had used cannabis but had not tried any other drugs. Craig had smoked cannabis regularly and been involved in offending. At one point he had been smoking cannabis on a daily basis and had first tried it aged 15. Helen had been involved in some minor offending (being loud and graffiti) when she was younger and tried cannabis aged 16. She had drunk regularly from the age of 15 but had reduced her drinking from the age of 18 and at the time of interview said she rarely drank anymore. When he was younger, Philip had hung around with a few people from another area of Edinburgh and broke into a few cars with them. He had tried cannabis later (aged 17) with different friends and at the time of interview was drinking regularly but not offending. Colin had not been involved in offending. He first tried cannabis at 15 and said he smoked it occasionally and was drinking moderately at the time of interview. Neill was drinking on a weekly basis, had not offended either and had first tried cannabis aged 16. Jess and Andrea both drank regularly, had tried cannabis aged 17 and neither had been involved in offending.

Family

Young people in the cannabis only group seemed to have been well socially bonded. They tended to have had good relationships with parents and were less likely to have experienced multiple stressful life events. The cannabis trying non-offenders, particularly Colin, Jess and Andrea seemed to have had almost idyllic problem free family lives. It was not unusual for alcohol or drugs to have been used to deal with things, across subgroups. Atypically, Craig also saw his offending as having been related to his parents’ separation. He said the fact that he had found it hard to deal

with his parents' separation was the reason why he had been offending, drinking more and smoking more cannabis for a while. Craig said that around the time his parents split up he had smoked more cannabis, drunk more and offended because his 'head was all over the place.' He also said he had offended for the buzz and used cannabis to get to sleep. He had gone through a phase of ripping badges off cars:

'I think it was just to get a kick out of it, something that you're not supposed to do but you're doing it'. (Craig, cannabis only)

Craig said he only ripped badges off cars and took his Mum's car without her permission when he was drunk.

Main activities

Young people in the cannabis only group seemed to have liked school and had good relationships with teachers and tended to have done well at school. Involvement in school and structured activities outside school time appeared to operate as protective factors against involvement in other drug use. In contrast to other subgroups, the cannabis only group seemed to have been more much likely to have been involved in organised spare time activities and extremely unlikely to have been 'hanging around' in the street with nothing to do at an early age. For example, Andrea played a great deal of hockey, Jess spent most of her spare time dancing, and Colin and Neill spent a large amount of time playing football with their friends. Even when drinking underage these young people had always drunk in friends' houses, never outdoors (the context which seemed to have been related to offending).

Friends

Young people tended to have said that their friends' drug use was similar to their own across the subgroups. However, those who had tried cannabis did not necessarily say most of their friends used drugs. Although these young people may have known people who had used other drugs, none of their close friends had. Although peer pressure was cited as reason when interviewees were asked why young people used drugs it seemed that this was just a ready made explanation. It appeared to be more about being offered something rather than pressure from peers.

I: WHY DO YOU THINK YOUNG PEOPLE DO TRY OR USE DRUGS?

‘Eh, I don’t know, peer pressure? Or the fact it’s quite easily available, nights out and that, folk from up town or a couple of mates would offer.’ (Phil)

For example Neill mentioned peer pressure as the reason for using cannabis but in fact it sounded more like he was offered it by someone and decided to try it, rather than having been pressured into it.

‘So I think it all comes down to peer pressure, I think a lot of people might say that, em and I tried it [cannabis].’ (Neill, cannabis only)

When asked to clarify what had happened and what he meant he said:

‘The guy was just saying ‘oh I’ve got this stuff, you want to try some?’ So there was about three people smoking it so I thought well I’ll try it anyway.’ (Neil)

Interviewees even went as far as to explicitly say that they had not experienced peer pressure.

‘I’ve never had anyone say you should try this it’s great, so I wouldn’t be tempted. There’s no peer pressure.’ (Colin, cannabis only)

SECTION 3: DISCUSSION OF RELATIONSHIP

Similarities were found across the subgroups in relation to factors of central importance in explaining drug use. At times, drugs were used by young people across the subgroups as a method of coping, perhaps by escaping from problems and forgetting about things. Young people often reduced or increased their drug use when their circumstances changed. For example, dropping out of school, being sent to prison, changing their lifestyle, boyfriend or group of friends may have had an impact. The extent of their drinking and drug use may also depend on the amount of time and money available to them. It is important to look at what young people are doing with their time and who they are spending it with.

Friends have an extremely important role to play in explaining drug use. Young people tended to have first tried drugs with their friends. Alternatively it was their boyfriend, siblings or other relation with whom they had their first drug trying experience. Sometimes, those who introduced them to drugs were older than they. Young people’s decisions to try a drug may be related to their viewing a drug as

socially acceptable, which may be shaped by their friends' views or behaviour. Less commonly, young people said they felt pressured in some way into taking drugs by people around them. Generally speaking, however, rather than peer pressure, young people's initiation to drug use tended to be more about the fact that their friends were doing it, they themselves were curious and an opportunity arose. Interviewees tended to feel that drug use was prevalent: 'everyone else was doing it' so they did not see it as a big deal and it was offered to them and they thought 'why not?' Seeing friends using drugs and coming away relatively unscathed seemed to invalidate the reasons (for example relating to the risks involved) they may have had previously had for not using drugs.

The explanations for drug use provided by interviewees tended to vary by subgroup. Early onset drug users said they offended and used drugs because there was 'nothing to do'. Mid-teen onset drug use and offending was linked to peer group context and this tended to be seen as being related to hanging around with the 'wrong crowd'. Those who began using other drugs later on in the teenage years were more likely to present their drug use as being a legitimate life experience.

Insights from qualitative findings were used to enable the further interpretation of quantitative findings. However, although it was attempted it did not prove possible to conduct regression analyses using the subgroups that emerged during the analysis of in-depth interviews. Unfortunately, there were not a sufficient number of cohort members who had engaged in other drug use, particularly earlier on in the teenage years. Prevalence of other drug use at age 17 (based on self-report questionnaire data) was higher than earlier on in the teenage years. However, a significant number of young people who took part in the in-depth interviews had only begun taking other drugs after the sweep six questionnaire. This suggests that the prevalence of other drug use amongst the cohort as a whole would have been even higher at age 18 to 19 (the age at which in-depth interviews were conducted) than it was at age 17.

Although there were some examples of drinking or drug use being directly related to offending, whether due to being under the influence or buying drugs with the proceeds of drug dealing or shoplifting, young people did not necessarily feel that their offending and drug use were related. Young people were asked where they had

obtained money to buy drugs. Drugs were primarily purchased with legitimate resources (pocket money, wages etc). When they were younger they had obtained money from parents and or part-time jobs. They tended to say they did not spend much when they were younger but once they were working full-time they had more money to spend on nights out. Those who said they spent a large amount of their wages on nights out said a big night out drinking and using cocaine could cost up to £200. Those who did not have full-time jobs at the time of interview because they were studying or were unemployed had less money to spend on nights out. This meant they had to be more careful with their money, not that they went out stealing to fund their drinking and drug use.

Young people who said they had committed acquisitive crimes in order to get money for drugs tended to have done so occasionally when they were younger and had not been using drugs dependently at the time. They had committed such offences (for example shoplifting) on many other non drug-related occasions as well. In some cases drug use and offending appeared to be clearly related, where young people directly attributed their offending to drugs or alcohol. However, others said that their drug use and offending were not related despite the fact that they had assaulted people under the influence or stolen things and spent the proceeds on drugs. Also, they did not seem to have engaged in activities they would not have previously been involved in, in order to get drugs.

Young people were more likely to see others' drugs and crime as being more closely related, for example, theft by heroin addicts. Laura said she felt that:

'Alcohol definitely fuels a lot of crime, in terms of violence in people.'
(Laura, later onset)

Kirk said that his friend (who is currently in prison for attempted murder) became violent if he touched whisky. Young people linked heroin addiction with stealing and or violence. Emma, who admitted stealing occasionally with a friend to get some heroin to share between them said:

'They used to be my good pals, they are all on it now [heroin] and just the state of them, they are just different people eh... they're all out stealing and everything.' (Emma, early onset)

Barry said the 'junkies' [heroin addicts] in his area would sell you anything and would kill you for £10.

SUMMARY AND CONCLUSION

Those who had begun using other drugs later in the teenage years highlighted their enjoyment of drugs as the central reason for their drug use and saw their drug use as legitimate experimentation. Drug use was seen as a choice, an important life experience which tended to have occurred in legitimate leisure contexts. These young people tended to say they were responsible and careful in their use of drugs. Later onset drug use was not necessarily connected with offending. Later onset other drug users who had engaged in offending during their mid-teens tended to depict their earlier offending as having been a by-product of hanging around with the 'wrong crowd', whereas their later drug use was portrayed as a legitimate part of their enjoyment of leisure time. For these young people, offending and drug use represented quite distinct behaviours, and were very separate phases in their lives, often engaged in with different groups of people.

Changes in levels or patterns of drug use did not appear to have had a direct effect on offending levels or patterns. Drug use does not cause offending. Young people who used drugs did not seem to have offended as a consequence of their drug use. Drug use did not normally come before offending; the reverse was more likely to be true. As young people grew older there was a tendency to sustain or increase drug use whilst dramatically reducing involvement in offending. When offending and drug use did occur at a similar time this may be best understood in terms of both behaviours occurring as a result of similar factors or in similar social situations, contexts or locations with groups of people.

There were commonalities in explanations for and contexts surrounding young people's drug use and offending, especially earlier on in the teenage years. However, even among those young people whose drug use and offending careers overlapped, the relationship may not be as close as is often assumed. Although there were similarities across explanations for drug use and offending, drug use also had some distinct roles. Also, drug use filled certain functions that offending could not. Drugs were used by young people to help them relax, get to sleep or suppress

appetite for example. As we have said young people's lack of engagement with main or leisure activities may have an impact on their involvement in offending and drug use. However, certain related elements such as money, time, responsibilities and stress may act as de-amplifying as well as amplifying factors particularly for drug use rather than offending. For example, not attending school or being unemployed and lacking structure in every day life may provide more time and freedom to use drugs. Yet not having a job may also mean having less money to spend on drugs. When they were working full-time, young people had more disposable income available to spend on drugs. However, the responsibilities which come with work often resulted in people reducing the number of times they went out, and hence their drinking or drug use. On the other hand young people said they used certain drugs to relax or de-stress after work or as a release at the weekends.

Those who took drugs at a young age (age 13 or younger) were weakly bonded to family and school as compared to the majority of young people who tended to be well socially bonded at this age. Their explanation of both drug use and offending as being related to their feeling bored can be understood as in the context of their weak social bonds. Peer group context was central to understanding mid-teen drug use and offending which can also both be understood as having similar meanings. In contrast, later onset drug users who were socially bonded felt they had the capacity to act and portrayed their drug use as an important life experience and legitimate lifestyle choice. Early and mid-teen drug use went hand in hand with offending. Later drug use had a different meaning to offending. Whereas earlier drug use and offending occurred outdoor locations, later drug use tended to be located in legitimate leisure contexts.

CHAPTER 9: CONCLUSION

INTRODUCTION

The thesis employs both quantitative and qualitative research methods in explaining drug use, offending and the relationship between the two over the teenage years for this Edinburgh based cohort of young people. Results show that drug use and offending follow different patterns over the teenage years. Both may broadly be explained with reference to different levels of informal social control and peer group interactions. However, findings have shown that whilst earlier drug use can be explained in a similar way to offending; later in the teens drug use can represent something different. The linkage between them is stronger earlier, when drug use is more deviant. The social meaning of offending remains stable over the teenage years, yet the meaning of drug use changes over this period, as does the relationship between the two behaviours. Whilst early involvement in offending is central to explaining mid-teen drug use, early drug use does not explain mid-teen offending. However, mid-teen drug use does form part of the explanation of later involvement in offending.

SECTION 1: PROGRESS IN ACHIEVING RESEARCH AIMS

This chapter looks at the progress that has been made in achieving the research aims and is arranged around the aims as set out in the introduction. These were to:

- a) compare patterns of drug use and offending between the ages of twelve and seventeen years;
- b) ascertain whether the strength of the relationship between the two changes over the teenage years;

- c) investigate whether drug use and offending can be explained by a similar or distinct set of factors and whether this is different earlier and later in the teenage years;
- d) see whether drug use and offending have an impact on later involvement in the other behaviour having taken account of explanatory variables;
- e) build on these explanations of drug use, offending and the relationship between the two, by exploring the symbolic meanings young people attach to these behaviours.

a) To compare patterns of drug use and offending between the ages of twelve and seventeen.

Patterns of prevalence and peak ages of onset of self-reported drug use and offending data between the ages of 12 and 17 (for the cohort as a whole) were compared and presented in chapter four. Findings show that between these ages drug use and offending follow very different patterns. Earlier on in the teenage years drug use is very rare, yet offending is common. The prevalence of offending decreases after age 14, but the prevalence of drug use continues to increase up to age 17. The 'age crime curve' does not appear to 'fit' for drug use. The peak age of onset for offending comes earlier than it does for drug use. This corresponds with findings from other studies which demonstrated that onset of offending precedes drug use (Huizinga et al. 1989, Menard et al. 2001, Pudney 2003, Tubman et al. 2004).

b) To ascertain whether the strength of the relationship between the two changes over the teenage years.

In chapter four, drug users' involvement in offending; offenders' involvement in drug use; and the strength of the relationship between the two at different points in the teenage years, were explored by comparing means and using odds ratios. Findings revealed that the relationship between drug use and offending is stronger earlier (as opposed to later) in the teenage years. Other drug use is more related to offending earlier in the teens than it is later. Early onset other drug users decreased their offending over time and those who began using other drugs later in the teens had a lower average volume of offending than the early onset group. Findings show

that there is change as well as continuity in involvement in drug use and offending over the teenage years. Also, later in the teens a number of young people engage in drug use without offending.

These findings support the idea that the nature of the relationship between drug use and offending changes over the life course (White and Gorman 2000). It makes sense that early drug use is more closely related to offending than later drug use, because substance use is more deviant earlier on in the teenage years. This fits broadly with findings from some previous studies (though results are not directly comparable). For example, Barnes et al. (2002) found that the relationship between alcohol and both delinquency and illicit drug use were stronger for younger than older adolescents; and Menard et al. (2001) found that crime and drug use were more closely associated in adolescence than adulthood.

c) To investigate whether drug use and offending can be explained by a similar or distinct set of factors and whether this is different earlier and later in the teenage years.

An array of potential explanations (broadly: pharmacological; psychological; and sociological) for drug use and offending were reviewed in chapter two. There is recognition within the body of literature on the topic that effective explanations should take account of a combination of elements. This review found that demographic and socio-structural, familial, school, peer and lifestyle factors are important in understanding teenage drug use and offending. Both can broadly be explained with reference to low levels of informal social control and peer group factors. The theoretical position underlying the set of explanatory variables (used for the purposes of multivariate analyses), acknowledges that: socio-structural position impacts on social bonds; those who are subject to less informal social control are more likely to engage in deviant peer group contexts in which offending and drug use opportunities occur and the social acceptability of behaviours are defined; and involvement in deviant activities increases the likelihood of engagement in other deviant activities.

The relationship of these variables to drug use and offending was looked at in exploratory analyses in chapter five. These preliminary analyses suggested that,

whilst there was a degree of similarity in the set of variables that were related to drug use and offending, there were also some interesting differences. However, multivariate analysis was necessary in order to establish whether each of the variables was important in explaining drug use and offending in the context of other factors. In chapter six these variables were entered into separate regression analyses explaining drug use and offending at different points in time over the teenage years. These were compared in order to see whether drug use and offending could be explained by a similar set of factors.

Findings show that over the teenage years, explanations for offending remain stable. Offending is explained by low levels of informal social control and engaging in deviant peer group contexts. However, the meaning of drug use changes over this period. Earlier drug use is deviant, can be explained in a similar manner to offending, and is strongly linked to offending. Involvement in offending is central to explaining involvement in drug use early on in the teens. Early drug use is also explained by having poor quality relationships with parents and teachers and by involvement in offending based peer groups (gangs).

However, the meanings of the two behaviours drift apart in the process of development over this period. Later in the teenage years drug use can be understood differently to both earlier drug use and offending. By the later teens the group of drug users had expanded and included relatively middle class people committed to the values of school. The complex relationship between drug use and offending and social stratification is interesting. At this age drug use is also explained by close friend's drug use rather than by gang membership.

As these findings show, although similar explanations can be employed in the exploration of both drug use and offending, it is important to acknowledge that there may be differences in the meaning of these behaviours for young people. Earlier drug use is more deviant and is explained in a similar way to offending, whereas later drug use represents something different. The extent to which they may be explained in a similar way changes over the teenage years, as does their role amongst other variables in explaining later involvement in the other behaviour (as will be explored further in the next section).

d) To see whether drug use and offending have an impact on later involvement in the other behaviour having taken account of explanatory variables.

Further multivariate regression analyses were undertaken in order to examine the role of one of these behaviours (e.g. offending) in explaining involvement in the other behaviour (e.g. drug use) two years later. Being involved in offending at age 13 is central to the explanation of involvement in drug use at age 15 (even with drug use at age 13 included in the model). In addition, having a close friend who is involved in offending and moral beliefs accepting of offending are also important in explaining mid-teen drug use. This suggests that involvement in offending based peer group contexts open up drug-trying opportunities. It is in the context of peer group interactions that opportunities occur and the social acceptability of behaviours may be defined. Interestingly, drug use at age 15 is also explained by being female and non-manual socio-economic status. Along with earlier involvement in offending, not living with two parents and experiencing stressful life events also form part of the explanation of mid-teen drug use.

In contrast, early drug use does not help explain mid-teen offending (having taken other explanatory variables into account). This finding is rather surprising and quite difficult to explain because one might expect that early involvement in drug use (deviant) would help explain involvement in offending two years later. Although further analysis would be required to delve deeper into explanations for this finding, it is possible to offer a tentative explanation. That is, early drug use does not explain mid-teen offending because it (early drug use) is so rare and mid-teen drug use is so well explained by other factors that have been taken into account. So, the small number of drug users at age 13 does not form part of the explanation of mid-teen offending, which is engaged in by many young people (prevalence of offending peaks during the mid-teens) who had not necessarily previously used drugs.

Drug use at age 17 is explained by non-manual socio-economic status and is not explained by weak bonds during the mid-teens. Lower (rather than higher) levels of involvement in mid-teen offending form part of the explanation of later drug use. Furthermore, mid-teen offending does not explain later involvement in drug use once mid-teen drug use has been taken into account. Also, matched named best friend's

drug use (but not offending) was important in explaining later drug use. Findings suggest that drug users at age 17 are relatively middle-class and not necessarily weakly socially bonded. In contrast, although it is not as important as other factors, mid-teen drug use helps explain later offending (even with mid-teen offending in the model). More involvement in offending at age 17 is explained by mid-teen involvement in offending based contexts and weak bonds, as well as drug use, which is likely to impact on later involvement in offending by weakening these bonds and deepening deviant involvement.

Results fit with research findings, cited in the literature review, which are supportive of a 'combination' model, that is, acknowledging that drug use and offending may be the result of a similar, but not identical set of causes and exert some influence on one another. Findings also show that the relationship changes over the teenage years. Earlier offending has a central role to play in explaining mid-teen drug use, but mid-teen drug use forms part of the explanation of later offending. Findings suggest that early offending based contexts open up drug using opportunities, yet drug use helps to explain continued involvement in offending by weakening social bonds and deepening deviant involvement. The idea is that offending has a role in explaining onset of drug use, whilst drug use plays a part in understanding the maintenance of offending (Huizinga et al. 1989, Elliott et al. 1989).

e) To build on these explanations of drug use, offending and the relationship between the two, by exploring the symbolic meanings young people attach to these behaviours.

Whilst the symbolic meaning of offending remained stable over the teenage years, in contrast the meaning of drug use changed over this period. Building on quantitative results, findings from in-depth interviews illustrate how the symbolic meaning of drug use varies over this period, by subgroup. Earlier in the teenage years young people who used other drugs did so for similar reasons and in similar contexts to offending. Early onset drug use was rare and these young people were weakly bonded to parents and families and saw their drug use as having been a reaction to having 'nothing to do'. Those who engaged in other drug use at an early age were far

less socially bonded than young people tend to be at that age. Peer group interactions were important in understanding mid-teen onset drug use, which occurred with offending in street-based contexts. The concept of 'drift' is useful in understanding some young people's rather transitory involvement in offending during the mid-teens. However, later onset drug users saw their drug use as an important life experience, one that took place in legitimate leisure contexts, quite separate to offending.

Young people across the subgroups commonly employed neutralisation techniques in relation to their offending behaviour. In a somewhat similar manner, early and mid-teen onset drug users tended to excuse or give explanations for their drug use. By saying they took drugs because there was 'nothing to do' or because it was part of the peer group context they hung around in, they were acknowledging the deviance of their drug use. In contrast, later onset drug users portrayed their drug use as a legitimate lifestyle choice, thereby challenging established norms and contesting the depiction of drug use as deviant. Whilst earlier drug users lacked the constraints of social bonds, in contrast later onset drug users appeared to exercise their capacity to act by making decisions to use drugs.

Findings from in-depth interviews also indicate that a great level of detail is required in order to describe and categorise young people's drug using behaviour. Quantitative classifications and groupings are unlikely to provide an accurate picture, as the reality is much muddier. Research should consider more than just drug type and frequency of use. Looking at the centrality of drug use proved to be useful in understanding the significance and meaning of drug use for young people. Findings suggest that across the subgroups drugs are used as a way of coping with things, from difficult family situation, to work related stress. Drugs were also used to achieve certain effects, for example in order to get to sleep or suppress appetite.

Qualitative findings indicate that the term peer pressure (although invoked by interviewees without any mention of this term by the interviewer) lacks an understanding of the intricacies of peer group interactions and tended to be rejected by young people. Clearly peers have a central role to play, but this may be better expressed as peer influence, rather than as direct pressure. In fact, in keeping with

Glassner and Loughlin's (1987) research, peers tended to have been depicted as legitimators and suppliers rather than sources of pressure.

It is also important to recognise that young people are curious and both drug use and offending may be attractive to them. It is vital to acknowledge pleasure and preference, whilst recognising that choice is not something equally shared by all those in society (Measham 2004). Comparisons between early and later onset drug use groups illustrate this. Young people choose between alternatives, but freedom is not equally distributed (Matza 1964). This may be understood in the context of the paradox presented by informal social control, wherein weak bonds involve an absence of constraint whilst strong bonds confer a more positive freedom in the form of the capacity to act. Later onset drug users tended to engage with the concept of risk, do their own research about drugs and say they use them sensibly. They saw their drug trying as an important life experience and legitimate leisure choice.

The qualitative element of this research also allowed for the exploration of 'turning points' (Laub and Sampson 2003) that facilitated the reduction of involvement in offending or drug use. Young people spoke about changing friendship groups, growing up, and the increased responsibilities associated with having a serious job or starting a family of their own. It is important to acknowledge change as well as continuity in behaviour, especially over the teenage years. In accordance with quantitative findings, there was a tendency for interviewees to have said they had reduced their offending over this time, but had simultaneously increased their drug use. Findings also showed that patterns of levels of involvement in drug use and offending did not tend to directly follow one another.

Results support findings that indicate that different relationships between drug use and offending exist for different subgroups of the population (Chaiken and Chaiken 1990, MacCoun et al. 2003). This thesis backs up the claim that a single model cannot explain the relationship between drug use and offending for all adolescents (White et al. 2002). Both quantitative and qualitative findings suggest that the reciprocal, rather than uni-directional, effects of variables should be taken into account.

SECTION 2: POLICY IMPLICATIONS

These findings indicate that policies dealing with drug use earlier on in the teenage years could be quite similar to those aiming to reduce offending. However, they do not suggest that drug use by young people would be best approached from a crime control perspective. The central objective of policies relating to both drug use and offending by young people should be to foster inclusion and prevent exclusionary outcomes. Findings suggest that different approaches should be used to deal with drug use at different ages. Later drug use should be understood differently and dealt with separately to offending.

Findings highlight the central role of family relationships in understanding young people's offending and drug use. Every attempt should be made to support parents in the creation of positive home environments and relationships with their children. Intensive support should be given to both parents and children dealing with chaotic and challenging circumstances. Policies should aim to strengthen young people's social bonds and engage them in as positive a way as possible. Every effort should be made to reduce truancy levels and not to exclude young people from school. Schools should be tailored to the divergent needs and interests of young people in order to keep them engaged. Structured after-school leisure activities should be offered that can interest and involve young people. It would be advisable to engage young people themselves in decisions about the type of activities that should be available in local areas.

Drinking and drug use appear to be more strongly connected to offending in the context of spending time hanging around outdoors. Therefore, every effort should be made to include rather than exclude young people from legitimate leisure contexts. There is a tendency for young people, especially those in the mid-teenage years, to be pushed away and treated with suspicion rather than embraced and valued by society. Social interventions at many different levels (individual, family, school and neighbourhood level) could be used. Another aim should be to increase the

likelihood of young people reducing their involvement in offending or drug use by assisting in the creation of 'turning points' such as jobs or other commitments.

Young people across the subgroups should be given support in developing positive coping mechanisms as alternatives to using drugs. Information and support services are also of central importance. It is important to improve methods used to reach, advise and support younger and more socially isolated groups of young people. Findings also suggest that young people's drug use would be best dealt with from a health or broader social policy framework rather than a criminal justice one. For example, it would not make sense to provide advice and information services via criminal justice channels when those who access them tend to be using drugs in contexts quite separate from offending.

This thesis suggests that drug policy should not be subsumed within a crime control agenda. However, what we find is that, of late, health concerns have become crime concerns. Over time there have been huge changes in the way drug use is viewed and dealt with, broadly from a medical to criminal model. In recent years drug use has increasingly been dealt with as a criminal justice issue, not just with regard to drug supply and control. Drug use is tackled with the aim being to reduce crime. In fact the use of legal substances such as alcohol are increasingly being targeted in the fight to reduce crime. In general, this research suggests that much drug use by young people would not be best approached and dealt with as a criminal justice issue. Also, findings suggest that in relation to the young people in this cohort, tackling drug use would not be an effective or sensible means by which to reduce levels of offending.

SECTION 3: STRENGTHS AND LIMITATIONS

The fact that this research was conducted in conjunction with the Edinburgh Study enabled access to far more data than could otherwise have been collected within the time and resource constraints of a doctoral study. Being able to explore the relationship between drug use and offending for an entire cohort of young people (males and females), from a variety of social backgrounds was beneficial. It was a

huge advantage to have had continuous data covering the period between the ages of 12 to 17. Unfortunately at present no further Edinburgh Study self-report data has been collected since the age of 17.

In exploring the relationship between drug use and offending over the teenage years, longitudinal research is valuable. This allowed for the examination of patterns of drug use and offending over the teenage years. Multivariate regression analyses enabled the investigation of relationships between a set of variables and drug use and offending over this period. However, further quantitative analysis of this data would be required to expand on explanations that have been put forward here.

Unfortunately it was not possible to conduct regression analyses with the subgroups that emerged during the in-depth interview process, due to the number of cohort members being too small. The ability to look at the relationship between self-reported offending and drug use and the behaviour of a matched named best friend was a distinct advantage. However, it is unfortunate that best friends were not named at every sweep.

Combining qualitative and quantitative methods was beneficial as this facilitated the exploration of the significance and meaning of behaviours for young people, in addition to comparing patterns and conducting longitudinal regression analyses. Naturally there were time and other resource restrictions. For example, the attempt to contact additional heavier end drug using cohort members was unsuccessful. Although it is likely they were few in number at the time, perhaps given more time and resources it would have been possible to have found and interviewed them. The focus of this research was on developmental, rather than short-term relationships over the teenage years. Therefore, only a limited amount can be said about the immediate relationship between drug use and offending. If this had been the focus, alternative methods such as participant observation would have been appropriate. However, the nature of this sample (a cohort of distinct individuals) would not have been conducive to participant observation.

SECTION 4: IMPLICATIONS AND POSSIBILITIES FOR FUTURE RESEARCH

Findings indicate that future research on the topic should ideally combine quantitative and qualitative methods. The two methods could be integrated further and this may prove to be advantageous. This thesis confirms that future research should consider a range of possible relationships between drug use and offending and certainly not focus on a single uni-directional causal model. It should also be acknowledged that the relationship changes over time and is different for different groups of people. As young people often consume substances in combination with others, research should look at a number of substances rather than just focusing on one. Studies should where possible use direct measures of (matched) friends' offending and drug use.

Further quantitative analyses could be conducted with the existing data; perhaps using group based modelling techniques such as trajectory modelling. However, given that findings from in-depth interviews challenged the meaning of initial subgroups (based on preliminary quantitative groupings referring to drug type and frequency of use), the suitability of group based modelling techniques to taking research findings further would be explored fully before a decision would be made to use these techniques.

Building on this thesis it would be valuable to look at the relationship between drug use and offending for future sweeps of Edinburgh Study data when cohort member are young adults. In the future it would also be interesting to do more research with heavily involved drug using cohort members (using in-depth interviews and perhaps drug diaries). At the time I was conducting my interviews, there were very few heavily involved drug users (for example injecting heroin users) in the cohort and the cohort members were barely old enough to access adult services. Once they are a bit older they may be easier to contact through adult drug services and criminal justice agencies.

CONCLUSION

By looking longitudinally at the relationship between drug use and offending over the teenage years for a cohort of young people in Edinburgh; and in employing both secondary analysis of questionnaire data and in-depth interviews, this research fills a gap in the body of UK based research on the topic. Drug use and offending follow different patterns over the teenage years. Social meanings of drug use change over the teenage years, as does the strength of the relationship between drug use and offending. This thesis shows that drug use and offending are more closely related earlier on in the teenage years when they have similar meanings and explanations. Later drug use can represent something quite different (different both to offending and earlier drug use) and occur separate from offending. Although drug use and offending may be explained in a broadly similar manner, drug use can have a distinct role and be understood quite differently to offending.

The different levels of informal social control young people experience are important in explaining the age of onset of drug use. Those who used drugs at a young age were weakly bonded and saw their drug use and offending as a response to having 'nothing to do'. Mid-teen involvement in drug use was understood as being part and parcel of the offending based peer group contexts in which they socialised. In contrast, later onset drug users challenged the deviance of their drug use by portraying it as a legitimate lifestyle choice. Even amongst those who engage in both drug use and offending during a similar time period, the relationship is not as close as is often assumed. The complexity of the relationship must be acknowledged. No single model can describe the relationship between drug use and offending for all people, this will vary by subgroup. Findings support a combination model, one which does not rule out any possibilities and focuses on explanations of both behaviours rather than solely on direction of causal effect. Low levels of informal social control and peer group interactions are important in explaining both drug use and offending. Involvement in offending opens up drug trying opportunities, yet in turn drug use may help to explain the continuation of offending, by contributing to weakening bonds and deepening deviant involvement.

BIBLIOGRAPHY

6, P., Jupp, B., Perry, H., Laskey, K. (1997), *The Substance of Youth: The Role of Drugs in Young People's Lives Today*. York: Joseph Rowntree Foundation.

Adaiaf, E. and Giesbrecht, N. (1996) The substance use-delinquency nexus: Commentaries on Fergusson et al.'s 'Alcohol misuse and juvenile offending in adolescence.' *Addiction* 91 (4) 495-510

Agar, M. (1973) *Ripping and Running: A Formal Ethnography of Urban Heroin Addicts*. New York: Seminar Press.

Akeroyd, A. V. (1984) 'Ethics in relation to informants, the profession and governments' in Ellen, R. F. (ed.) *Ethnographic Research: A guide to general conduct*. London: Academic Press.

Akers (1973) *Deviant Behaviour: a social learning approach*. Belmont, CA: Wadsworth.

Anderson, S., Kinsey, R., Loader, I., and Smith, C. (1994) *Cautionary Tales: Young people, crime and policing in Edinburgh*. Aldershot: Avebury.

Andrews, J. A., Tildesley, E., Hops, H., and Li, F. (2002) 'The influence of peers on young adult substance use.' *Health Psychology* 21 (4): 349-57.

Anglin, D. M. and Speckart, G. (1988) 'Narcotics Use and Crime: A Multisample, Multimethod Analysis.' *Criminology* 26 (2).

Apospori, E. A., Vega, W. A., Zimmerman, R. S., Warheit, G. J. and Gil, A. G. (1995) 'A Longitudinal Study of the Conditional Effects of Deviant Behaviour on Drug use among Three Racial/Ethnic Groups of Adolescents' in Kaplan, H. B. (ed.) (1995) *Drugs, Crime, and Other Deviant Adaptations, Longitudinal Studies*. New York: Plenum Press.

Bahr, S. J., Hoffmann, J. P., and Yang, X. (2005) *Journal of Primary Prevention* 26 (6): 529-551.

Barnea, Z., Teichman, M., Rahav, G. (1993) 'Substance use and abuse among deviant and non-deviant adolescents in Israel.' *Journal of Drug Education* 23 (3): 223-36.

Barnes, G. M., Welte, J. W., and Hoffman, J. H. (2002) 'Relationship of alcohol use to delinquency and illicit drug use in adolescents: Gender, age, and racial/ethnic differences.' *Journal of Drug Issues* 32 (1): 153-178.

Barrett, A.E. and Turner (2006) 'Family structure and substance use problems in adolescence and early adulthood: examining explanations for the relationship.' *Addiction* 101: 109-120.

- Bayley, D. H. (1991) *Forces of Order: Policing modern Japan*. Revised Second Edition. University of California Press: California.
- Beal, A. C., Ausiello, J. and Perrin, J. M. (1991) 'Social influences on health-risk behaviours among minority middle school students.' *Journal of adolescent Health* 28 (6): 474-480.
- Bean, P. (2002) *Drugs and Crime*. Cullompton, Devon: Willan Publishing.
- Becker, H. S. (1963) *Outsiders: Studies in the Sociology of Deviance*. New York: The Free Press.
- Beinart, B. A., Lee, S. and Utting, D. (2002) *Youth at Risk? A national survey of risk factors, protective factors and problem behaviour among young people in England, Scotland and Wales*. London: Communities that Care.
- Bennett, T. (1998) *Drugs and crime: The results of research on drug testing and interviewing arrestees*. Home Office Research Study 183. London: Home Office.
- Bennett, T. (2000) *Drugs and crime: The results of the second developmental stage of the NEW-ADAM programme*. Home Office Research Study 205. London: Home Office.
- Bennett, T. and Holloway, K. (2004) 'Gang Membership, Drugs and Crime in the UK' in *British Journal of Criminology* 44: 305-323.
- Bennett, T. and Holloway, K. (2005b) 'The Association Between Multiple Drugs Misuse and Crime' *international Journal of Offender Therapy and Comparative Criminology* 40 (1) 63-81.
- Blum, R. H. (1982) 'Violence, Alcohol, and Setting: An Unexplored Nexus' in: Collins, J. J. (ed.) (1982) *Drinking and Crime: Perspectives on the Relationships between Alcohol Consumption and Criminal Behaviour*. London: Tavistock.
- Blumer (1969) *Symbolic Interactionism*. Englewood Cliffs, N.J.: Prentice Hall.
- Blumensohn, R., Ratzoni, G., Weizman, A., Apter, A., Tyano, S., Israeli, M., Greuner, N. and Biegon, A. (2005) 'Reduction in serotonin 5HT2 receptor binding on platelets of delinquent adolescents.' *Pharmacology* 118 (3): 354-356.
- Boeri, M. W., Sterk, C. E. and Elifson, K. W. (2006) 'Baby boomer drug users: career phases, social control and social learning theory.' *Sociological Inquiry* 76 (2): 264.
- Boles, S. M. and Miotto, K. (2003) 'Substance abuse and violence: A review of the literature.' *Aggression and Violent Behaviour* 8 (2): 155-174.

- Brook, J.S., Nomura, C. and Cohen, P. (1989) 'A network of influences on adolescent drug involvement: neighbourhood, school, peer, and family.' *Genetic, Social and General Psychology Monographs* 115 (1): 123-45.
- Brook, J. S., Whiteman, M., and Cohen, P. (1995) 'Drug use, aggression and theft/vandalism.' In: Kaplan, H. B. (ed.) (1995) *Drugs, Crime, and Other Deviant Adaptations, Longitudinal Studies*. New York: Plenum Press.
- Brook, J. S., Whiteman, M., Finch, S. J. and Cohen, P. (1996) 'Young Adult Drug Use and Delinquency: Childhood antecedents and adolescent mediators.' *Journal of the American Academy of Child and Adolescent Psychiatry* 35 (12): 1584-1592.
- Bui, K.V. T., Ellickson, P. L., Bell, R. M. (2000) 'Cross-lagged relationships among adolescent problem drug use, delinquent behaviour, and emotional distress.' *Journal of Drug Issues* 30: 283-303.
- Burgess, R.G. (1984) 'Methods of Field Research 2: Interviews as Conversations' *In the Field: An Introduction to Field Research*. London: Allen and Unwin.
- Burr, A. (1987) 'Chasing the Dragon: Heroin Misuse, Delinquency and Crime in the Context of South London Culture.' *British Journal of Criminology* 27, 4: 333-357.
- Burt, C. H., Simon, R. L. and Simons, L. G. (2006) 'A longitudinal test of the effects of parenting and the stability of self-control: negative evidence of the general theory of crime.' *Criminology* 44 (2): 353-396.
- Carpenter, C., Glassner, B., Johnson, B.D., and Loughlin, J. (1988) *Kids, Drugs, and Crime*. Massachusetts: Lexington Books.
- Chaiken, J. M. and Chaiken, M. R. (1990) 'Drugs and Predatory Crime' in: Tonry, M. and Wilson, J. Q. (eds.) *Drugs and Crime: Crime and Justice: A Review of Research*. Volume 13. Chicago: University of Chicago Press.
- Chomsky, N. (1968) *Language and Mind: Enlarged Edition*. Harcourt Brace Jovanovich Inc: USA.
- Collison, M. (1996) 'In Search of the High Life: Drugs, Crime, Masculinities and Consumption.' *British Journal of Criminology* 36 (3): 428-444.
- Condon, J. and Smith, M. (2003) *Prevalence of drug use: key findings from the 2002/2003 British Crime Survey*. Findings 229. Research, Development and Statistics Directorate. London: Home Office.
<http://www.homeoffice.gov.uk/rds/pdfs2/r229.pdf>
- Currie, C., Fairgrieve, J., Akhtar, P, and Currie, D. (2003) *Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) National Report: Smoking, drinking and drug use among 13 and 15 year olds in Scotland in 2002*. Edinburgh: TSO.

- DeLi, S. Oriu, H. D., MacKenzie, D. L. (2000) 'Drug Involvement, lifestyles, and criminal activities among probationers.' *Journal of Drug Issues* 30 (3): 593-620.
- Dembo et al. 'Parents and drugs revisited: some further evidence in support of social learning theory.' *Criminology* 29 (3): 441
- Denscombe, M. (1998) *The Good Research Guide*. Buckingham: Open University Press.
- Denscombe, M. (2001) 'Peer Group Pressure, Young People and Smoking: new developments and policy implications.' *Drugs: education, prevention and policy* 8 (1) 7-32.
- Dielman, T. E., Butchard, A. T., Schope, J. T., and Miller, M. (1990-1991) 'Environmental correlates of adolescent substance use and misuse: implications for prevention programs.' *International Journal of Addiction* 25 (7a-8a): 855-80.
- Dinges, M. M. and Oetting, E. R. (1993) 'Similarly in drug use patterns between adolescents and thier friends.' *Adolescence* 28 (110): 253-66.
- Dishion, T. J. and Loeber, R. (1985) 'Adolescent marijuana and alcohol use: the role of parents and peers revisited.' *American Journal of Drug and Alcohol Abuse* 11 (1-2):11-25.
- Duke, K. (2006) 'Out of crime and into treatment?: The criminalization of contemporary drug policy since Tackling Drug Together.' *Drugs: Education, Prevention and Policy*. 13(5): 409-415.
- Dull, T. R. (1983) 'Research note. Friends' use and adult drug and drinking behaviour: a further test of differential association theory.' *Journal of Critical Law and Criminology* 74 (4) 1608-1619.
- Eitle, D. (2005) 'The moderating effects of peer substance use on the family structure-adolescent substance use association: quantity versus quality of parenting.' *Addictive Behaviour* 30 (5): 963-980.
- Ellickson, P. L, and Hays, R. D. (1992) 'On becoming involved with drugs: modelling adolescent drug use over time.' *Health Psychology* 11(6): 377-85.
- Ellickson, S. L., Tucker, J. S., Klein, D. J., and McGuigan, K. A. (2001) 'Prospective risk factors for alcohol misuse in late adolescence.' *Journal of Studies on Alcohol* 62 (6): 773-782.
- Elliott, D. S., Huizinga, D. and Ageton, S. S. (1985) *Explaining Delinquency and Drug use*. Beverly Hills: Sage.

- Elliott, D. S., Huizinga, D., and Menard, S. (1989) *Multiple Problem Youth*. New York: Springer-Verlag.
- Esbensen, F-A. and Huizinga, D. (1993) 'Gangs, Drugs, and Delinquency in a Survey of Urban Youth' *Criminology* 31 (4): 565-587.
- European Monitoring Centre for Drugs and Drug Addiction (2005) *Annual Report 2005: The State of the Drugs Problem in Europe*.
- Eysenck H.J. (1987) 'Personality Theory and the Problem of Criminality' in B.J. McGurk, Thorton, D.M. and Williams, M. (eds.) *Applying Psychology to Imprisonment*. London: HMSO.
- Fagan, J. (1990) 'Intoxication and Aggression' in: Tonry, M. and Wilson, J. Q. eds. *Drugs and Crime*. Crime and Justice, A Review of Research Volume 13. Chicago: University of Chicago Press.
- Farrington, D. P. (1995). The development of offending and antisocial behaviour from childhood: Key findings from the Cambridge study in delinquent development. *Journal of Child Psychology and Psychiatry* 36: 929-964.
- Fergusson, D. M. and Horwood, L. J. (2000) 'Alcohol abuse and crime: a fixed-effects regression analysis.' *Addiction* 95 (10): 1525-1536.
- Ford, J. A. (2005) 'Substance Use, the Social Bond, and Delinquency.' *Sociological Inquiry* 75 (1): 109-128.
- Forsyth, A. J. M. (1997) A quantitative exploration of dance drug use: the new pattern of drug use of the 1990's'. Unpublished PhD thesis.
https://dspace.gla.ac.uk/bitstream/1905/184/1/97forsyth_phd.pdf
- Fraser, F. (2002) *Drug Misuse in Scotland: Findings from the 2000 Scottish Crime Survey*. The Scottish Executive Central Research Unit.
<http://www.scotland.gov.uk/cru/kd01/green/dmis-00.asp>
- Fuller, E. (ed.) (2006) *Drug use, smoking and drinking among young people in England in 2005*. The Information Centre.
- Garnier, H.E. and Stein, J.A. (2002) 'An 18-Year Model of Family and Peer Effects on Adolescent Drug use and Delinquency.' *Journal of Youth and Adolescence* 31 (1): 45-56.
- Glassner, B. and Loughlin, J. (1987) *Drugs in adolescent worlds: Burnouts to straights*. Basingstoke: MacMillan.
- Goldstein, P. J. (1985) 'The Drugs/Violence Nexus: A Tripartite Conceptual Framework.' *Journal of Drug Issues* 15: 493-506

Gordon, A. (1990) 'Drugs and criminal behaviour.' in: Bluglass, R., Bowden, P. and Walker, N. (eds.) *Principles and Practice of Forensic Psychiatry*. London: Churchill Livingstone.

Gottfredson M. R. and Hirschi, R. (1990) *A General Theory of Crime*. Stanford, California: Stanford University Press.

Goulden, C. and Sondhi, A. (2001), *At the margins: drug use by vulnerable young people in the 1998/99 Youth Lifestyles Survey*. Home Office Research Study 228. Home Office Research, Development and Statistics Directorate.
www.homeoffice.gov.uk/rds/pdfs/hors228.pdf

Graham, J., Lewis, J., and Nicolaas, G. (2006) 'Ethical Relations: a review of literature on empirical studies of ethical requirements and research participation.' An ESRC Research Methods Programme Working Paper No 30. NatCen
<http://www.ccsr.ac.uk/methods/publications/documents/WP30.pdf>

Greenberg, S. W. (1982) 'Alcohol and Crime: A Methodological Critique of the Literature in Collins, J. J. (ed.) *Drinking and Crime: Perspectives on the Relationships between Alcohol Consumption and Criminal Behaviour*. London: Tavistock.

Greene, J. C., Caracelli, V. J. and Graham, W. F. (1989) 'Toward a Conceptual Framework for Mixed-Method Evaluation Designs' *Educational Evaluation and Policy Analysis* 11 (3): 225-274.

Greenwood, P. W. (1992) 'Substance abuse problems among high-risk youth and potential interventions.' *Crime and Delinquency* 38 (4): 444-458.

Hamil-Luker, J., Land, K. C. and Blau, J. (2004) 'Diverse trajectories of cocaine use through early adulthood among rebellious and socially conforming youth.' *Social Science Research* 33 (2): 300-321.

Hammersley, R., Forsyth, A., Morrison, V. and Davies, J. B. (1989) 'The Relationship between Crime and Opioid Use'. *British Journal of Addiction* 84: 1029-1043.

Hammersley, R., Marsland, L, and Reid, M. (2003) *Substance use by young offenders: the impact of the normalisation of drug use in the early years of the 21st Century*. www.homeoffice.gov.uk/rds/pdfs2/hors261.pdf

Hirschi, T. (1969) *Causes of Delinquency*. Berkeley: University of California Press.

Hore, B. (1990) 'Alcohol and Crime' in: Bluglass, R., Bowden, P. and Walker, N. (eds.) *Principles and Practice of Forensic Psychiatry*. London: Churchill Livingstone.

Hough, M. (1996) *Drugs Misuse and the Criminal Justice System: a review of the literature*. Home Office Drugs Prevention Initiative.

Hough, M., McSweeney, T., and Turnbull, P. (2001) *Drugs and Crime: what are the links?* A review paper prepared for Drug Scope's submission to the Home Affairs Select Committee. <http://www.drugscope.org.uk/druginfo/evidence-select/drugscime.htm> (last accessed 2006).

House of Commons Select Committee (2006) *Drug classification: making a hash of it?* <http://www.tdpf.org.uk/Drug%20classification.pdf#search=%22drug%20information%20classification%20system%20A%20B%20C%22>

Huang, B., White, H. R., Kosterman, R. K., Catalano, R. F. and Hawkins, J. D. (2001) 'Developmental Associations between Alcohol and Interpersonal Aggression during Adolescence.' *Journal of Research in Crime and Delinquency* 38 (1): 64-83.

Huizinga, D. H., Menard, S. and Elliott, D. S. (1989) 'Delinquency and Drug Use: Temporal and developmental Patterns.' *Justice Quarterly* 6 (3) 419-455

Huizinga, D. H., (1991) 'Assessing Violent Behaviour with Self-reports' in Miller, J. S. ed. *Neurophysiology of Aggression* 47-6. Boston: Kluwer.

Huizinga, D. H., Loeber, R., and Thornberry, T. P. (1994) *Urban Delinquency and Substance Abuse -Initial Findings, Research Summary*. Office of Juvenile Justice and Delinquency Prevention. U.S. Department of Justice. <http://www.ncjrs.org/pdffiles/urdel.pdf>

Hussong, A. M., Curran, P. J., Moffitt, T. E., Caspi, A. and Carrig, M. M. (2004) 'Substance abuse hinders desistance in young adults' antisocial behaviour'. *Development and Psychology* 16: 1029-1046.

Institute for the Study of Drug Dependence (1999) *Drug Abuse Briefing: A guide to the non-medical use of drugs in Britain*. Seventh Edition. London: ISDD.

Jarvis, G. and Parker, H. (1989) 'Young Heroin Users and Crime: How Do the 'New Users' Finance Their Habits?' *British Journal of Criminology* 29 (2):175-185.

Jessor, R. and Jessor, S. L. (1977) *Problem Behaviour and Psychosocial Development: A Longitudinal Study of Youth*. New York: Basic Books.

Johnson, B. D., Golub, A. and Dunlap, E. (2000) 'The Rise and Decline of Hard Drugs, Drug Markets, and Violence in Inner-City New York.' in: Blumstein, A., and Wallman, J. (eds.) *The Crime Drop in America*. Cambridge: Cambridge University Press.

Johnston, L. D., O'Malley, P. M., and Eveland, L. K. (1978) 'Drugs and Delinquency: A Search for Causal Connections.' in: Kandel, D. B. (ed.) *Longitudinal Research on Drug Use: Empirical Findings and Methodological Issues*. Washington: HPC

Jones (2005) *Genetic and environmental influences on criminal behaviour*. Unpublished. <http://www.personalityresearch.org/papers/jones.html>

Kandel, D. B. (1985) 'On processes of peer influences in adolescent drug use: a developmental perspective.' *Adv Alcohol Subst Abuse* 4(3-4):139-163.

Kandel, D. B., Simcha-Fagan, O. and Davies, M. (1986) 'Risk factors for delinquency and illicit drug use from adolescence to young adulthood.' *The Journal of Drug Issues*, 16: 67-90.

Katz, J. (1988) *Seductions of Crime: Moral and Sensual Attractions in Doing Evil*. New York: Basic Books.

Kemp, J. H. and Ellen, R. F. (1984) 'Informal interviewing' in: Ellen, R. F. (ed.) *Ethnographic Research: A guide to general conduct*. London: Academic Press.

Kinlock, T. W., O'Grady, K. E., Hanlon, T. E. (2003) 'Prediction of the Criminal activity of incarcerated drug-abusing offenders.' *Journal of Drug Issues* 33: 897-920.

Kinlock, T. W. Battjes, R. J., Gordon, M. S. (2004) 'Factors associated with criminal severity among adolescents entering substance abuse treatment.' *Journal of Drug Issues* 34 (2): 293-318.

Krohn, M. D., Thornberry, T. P., Collins-Hall, L., and Lizotte, A. J. (1995) 'School Dropout, Delinquent Behaviour, and Drug use: An Examination of the Causes and consequences of Dropping Out of School'. in Kaplan, H. B. ed. (1995) *Drugs, Crime, and Other Deviant Adaptations: Longitudinal Studies*. Plenum Press: New York.

Krohn, M. D, Lizotte, J. A., Thornberry, T. P., Smith, C. and McDowall, D. (1996) 'Reciprocal causal relationships among drug use, peers and beliefs: a five-wave panel model.' *Journal of Drug Issues* 26 (2): 405-428.

Laub, J. H. and Sampson, R. J. (2003) *Shared Beginnings, divergent lives: delinquent boys to age 70*. Cambridge, Massachusetts: Harvard University Press.

Lee, M., and South, N. (2003) 'Drugs policing' in Newburn, T. (ed.) *The Handbook of Policing*. Cullumpton: Willan.

Levine, E. M. and Kozak, C. (1979) 'Drug and alcohol use, delinquency, and vandalism among upper middle class pre- and post-adolescents.' *Journal of Youth and Adolescence* 8(1): 97-101.

- Lilly, J. R., Cullen, F. T. and Ball, R. A. (2002) *Criminological Theory: Context and Consequences*. Third edition. Thousand Oaks: Sage.
- Ljubotina, D., Galic, J., and Jukic, V. (2004) 'Prevalence and risk factors of substance use among urban adolescents: questionnaire study.' *Croat Medical Journal* 45(1):88-98
- Lynskey, M.T. and Fergusson, D.M. (1994) 'Childhood conduct problems, attention deficit behaviours, and adolescent alcohol, tobacco, and illicit drug use.' *Journal of Abnormal Child Psychology* 23(3):281-302.
- MacCoun, R., Kilmer, B. and Reuter, P. (2003) *Research on Drugs-Crime Linkages: The Next Generation*. NIJ Special Report, July 2003.
<http://www.ncjrs.gov/pdffiles1/nij/194616c.pdf>
- Madarasova, G.A., Steward, R., vanDijk, J.P., Orosova, O., Goothoff, J.W., and Post, D. (2005) 'Influence of socio-economic status, parents and peers on smoking behaviour of adolescents.' *European Addiction Research* 11(4): 204-9.
- Martin, S. S. and Robbins, C. A. (1995) 'Personality, Social Control, and Drug use in Early adolescence' in Kaplan, H. B. ed. (1995) *Drugs, Crime, and Other Deviant Adaptations: Longitudinal Studies*. Plenum Press: New York.
- Maruna, S. (2001) *Making Good: How ex-convicts reform and rebuild their lives*. Washington D.C.: American Psychological Association.
- Mason, W. A. and Windle, M. (2002) 'Reciprocal relations between adolescent substance use and delinquency: a longitudinal latent variable analysis.' *Journal of Abnormal Psychology* 111 (1): 63-76.
- Matrix Research and Consultancy and Institute for Criminal Policy Research, Kings College (2007) *Evaluation of Drug Interventions Programme pilots for children and young people: arrest referral, drug testing and Drug Treatment and Testing Requirements*. Home Office Report 07/07.
<http://www.drugs.gov.uk/publication-search/young-people/OLR0707?view=Binary>
- Matza, D. (1969) *Becoming Deviant*. Englewood Cliffs: Prentice Hall.
- Matza, D. (1964) *Delinquency and Drift*. New York: John Wiley and Sons Inc
- McAra, L. (2004) *Truancy, School Exclusion and Substance Misuse*. Centre for Law and Society, University of Edinburgh.
- McCord, J. 'Relationship between Alcoholism and Crime over the Life Course' in Kaplan, H. B. ed. (1995) *Drugs, Crime, and Other Deviant Adaptations: Longitudinal Studies*. Plenum Press, New York.

- McBride, D. C. and McCoy, C. B. (1982) 'Crime and Drugs: The Issues and Literature.' *Journal of Drug Issues* 12: 137-52
- McCrystal, P., Higgins, K., and Percy, A. (2006) 'Brief Report: School exclusion, drug use and delinquency in adolescence.' *Journal of Adolescence* 29: 829-836.
- McDonald, M. (1994) 'A Social-Anthropological View of Gender, Drink and Drugs' in: McDonald, M. (ed.) *Gender, Drink and Drugs*. Providence, U.S.A: Berg.
- McElrath, K., Chitwood, D. D., Comerford, M. (1997) 'Crime victimization among injecting drug users.' *Journal of Drug Issues* 27 (4) 771-783.
- McIntosh, J., Macdonald, F., and McKegany, N. (2003) 'The initial use of drugs in a sample of pre-teenage Schoolchildren: the role of choice, pressure and influence.' *Drugs: education, prevention and policy*. 10(2): 147-158.
- McVie, S. and Bradshaw, P. (2005) *Adolescent Smoking, Drinking and Drug Use*. Centre for Law and Society, University of Edinburgh.
- McVie, S. and Holmes, L. (2005) *Family Functioning and Substance Use at Ages 12 to 17*. Centre for Law and Society, University of Edinburgh.
- McVie, S. and Norris, P. (2006) *Neighbourhood Effects on Youth Delinquency and Drug Use*. Edinburgh: Centre for Law and Society.
- McVie, S., Norris, P. and Raab, G. M. (forthcoming) 'Adjusting for non-response in a longitudinal survey: comparisons of weighting and imputation'.
- Measham, F., Aldridge, J. and Parker, H. (2001) *Dancing on drugs: risk, health and hedonism in the British club scene*. Free Association Books: London.
- Measham, F. (2002) '“Doing gender” – “doing drugs”: conceptualizing the gendering of drugs cultures'. *Contemporary Drug Problems* 29: 335.
- Measham, F. (2004) 'Drug and Alcohol Research: The Case for Cultural Criminology.' In Ferrell, J. Hayward, K, Morrison, W. and Presdee, M. (eds.) *Cultural Criminology Unleashed*. London: The GlassHouse Press.
- Menard, S. and Mihalic, S. (2001) 'The tripartite conceptual framework in adolescence and adulthood: Evidence from a national sample.' *Journal of Drug Issues* 31: 905.
- Menard, S. Mihalic, S. and Huizinga, D. (2001) 'Drugs and Crime Revisited' *Justice Quarterly*. 18 (2): 269-299.

- Miles, S. (2002) 'Victims of risk? Young people and the construction of lifestyles' in: Cieslik, M. and Pollock, G. (eds.) (2002) *Young people in risk society: the restructuring of youth identities and transitions in late modernity*. Aldershot: Ashgate.
- Miller, P. and Plant, M. (1996) 'Drinking, smoking and illicit drug use among 15 and 16 year olds in the United Kingdom.' *British Medical Journal* 313: 394-7.
- Moffitt, T. E. and Henry, B. H. (1989) 'Neuropsychological assessment of executive functions in self-reported delinquents.' *Development and Psychopathology*, 1: 105-118.
- Moffitt, T.E. (1993). Life-course-persistent and adolescence-limited antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674-701.
- Murray, L. and Harkins, J. (2006) *Drug misuse in Scotland: Findings from the 2004 Scottish Crime and Victimization Survey*. Scottish Executive Social Research.
<http://www.scotland.gov.uk/Resource/Doc/136999/0034040.pdf>
- NACRO Youth Crime Section (2000) *Young People, Drug Use, and Offending*.
<http://www.nacro.org.uk/data/briefings/Nacro-2000060102-ycs.doc>
- Nagin, D. S. and Tremblay R. E. (2005) 'From Seduction to Passion: a response to Sampson and Laub' *Criminology* 43 (4): 915.
- Nash, S. G., McQueen, A., and Bray, J. H. (2005) 'Pathways to adolescent alcohol use: family environment, peer influence, and parental expectations.' *Journal of Adolescent Health* 37 (1): 19-28.
- Newcomb, M. D. and McGee, L. (1989) 'Adolescent Alcohol Use and Other Delinquent Behaviours: A One-Year Longitudinal Analysis Controlling of Sensation Seeking.' *Criminal Justice and Behaviour* 16 (3): 345-369.
- Newburn, T. and Shiner, M. (2001) *Teenage Kicks: Young people and alcohol: A review of the literature*. Joseph Rowntree Foundation. York: York Publishing.
- Oakley, A. (1981) 'Interviewing women: a contradiction in terms' in: Roberts, H. (ed) *Doing Feminist Research*, London: Routledge.
- O'Connell, A. A. (2006) *Logistic regression models for ordinal response variables* Series: Quantitative Applications in the Social Sciences number 146. Thousand Oaks California: Sage.
- Oetting, E. R., Deffenbacher, J. L. and Donnermeyer, J. F. (1998) 'Primary socialization theory. The role played by personal traits in the etiology of drug use and deviance. *Substance Use and Misuse* 33 (6): 1337-1366.

- Osgood, D. W., Johnston, L. D., O'Malley, P. M., and Bachman, J. G. (1988) 'The Generality of Deviance in Late Adolescence and early Adulthood'. *American Sociological Review* 53: 81-93.
- Otero-Lopez, J. M., Luengo-Martin, A., Miron-Redondo, L., Carillo-de-La-Pena, M. T., and Romero-Trinanes, E. (1994) 'An empirical study of the relations between drug abuse and delinquency among adolescents.' *British Journal of Criminology*, 34, 4.
- Pape, H. and Rossow, I. (2004) '“Ordinary people” with “normal” lives? Longitudinal study of ecstasy and other drug use among Norwegian youth.' *Journal of Drug Issues*. 34: 389-418.
- Parker, H. (1996) 'Young Adult Offenders, alcohol and criminological cul-de-sacs.' *British Journal of Criminology* 36 (2): 282-298.
- Parker, H., Aldridge, J., and Measham, F. (1998) *Illegal Leisure: The normalization of adolescent recreational drug use*. London: Routledge.
- Parker, H., Williams, L. and Aldridge, J. (2002) 'The Normalisation of ‘Sensible’ Recreational Drug Use: Further Evidence from the N. W. England Longitudinal Study.' *Sociology* 36 (4): 941-964.
- Patton, M. (1990) *Qualitative Evaluation and Research Methods 2nd Edition*. Newbury Park: Sage
- Pernanen, K. (1982) 'Theoretical Aspects of the Relationship between Alcohol Use and Crime.' in: Collins, J. J. (ed.) *Drinking and Crime: Perspectives on the Relationships between Alcohol Consumption and Criminal Behaviour*. London: Tavistock.
- Pudney, S. (2002) *The road to ruin: sequences of initiation into drug use and offending by young people in Britain*. Home Office Research Study 253. London: Home Office Research, Development and Statistics Directorate.
<http://www.homeoffice.gov.uk/rds/pdfs2/hors253.pdf>
- Pudney, S. (2003) 'The Road to Ruin? Sequences of initiation to drugs and crime in Britain' *The Economic Journal* 113 (March): 182-198.
- Qualitative European Drug Research Network (1999) *Workgroup Review of Qualitative Research on Exploring Relationships between illicit Drugs and Crime*.
<http://qed.emcdda.eu.int/resources/workgroups/crime/crime>. (last accessed 2006)
- Reid, L.D. (1989) 'A path analytic examination of differential social control theory.' *Journal of Drug Education* 19(2):139-56.

- Reifman, A., Barnes, G. M., Dintcheff, B. A., and Uhteg, L. (1998) 'Parental and peer influences on the onset of heavier drinking among adolescents.' *Journal of Studies on Alcohol* 59 (3):311-7.
- Reinharz, S. (1997) 'Who am I? The Need for a Variety of Selves in the Field', in Hertz, R (ed.) *Reflexivity and Voice*, Thousand Oaks, CA: Sage
- Rhodes, T., Lilly, r., Fernandez, C., Ciorgino, E., Kemmesis, U.E., Ossebaard, H. C., Lalam, N., Faasen, I. and Spannow, K.E. (2003) 'Risk Factors Associated With Drug Use: the importance of 'risk environment'.' *Drugs: education, prevention and policy* 10 (4): 303-329.
- Ribeaud, D. and Eisner, M. (2006) 'The Drug-Crime Link' from a Self-Control Perspective: An Empirical Test in a Swiss Youth Sample'. *European Journal of Criminology* 3 (1): 33-67.
- Richards, M. H, Miller, B. V., O'Donnell, P. C., Wasserman, M. S. and Colder, C. (2004) *Journal of Youth and Adolescence* 33 (3): 221-233.
- Richardson, J. L., Radziewska, B., Dent, C. W., and Flay, B. R. (1993) 'Relationship between after-school care of adolescents and substance use, risk taking, depressed mood, and academic achievement.' *Paediatrics* 92 (1): 32-8.
- Ritchie, J., Lewis, J. and Elam, G. (2003) 'Designing and selecting samples' in Ritchie, J. and Lewis, J. (eds.) *Qualitative Research Practices: a Guide for social science Students and Researchers*. London: Sage.
- Robins, L. N. and Ratcliff, K. S. 'Risk factors in the continuation of childhood antisocial behaviour into adulthood.' *International Journal of Mental Health* 7 (3-4) 96-116.
- Rodham, K., Hawton, K., Evans, E., Weatherall, R. (2005) 'Ethnic and gender differences in drinking, smoking and drug taking among adolescents in England: a self-report school-bases survey fo 15 and 16 year olds.' *Journal of Adolescence* 28: 63-73.
- Roe, S. and Man, L. (2006) *Drug Misuse Declared: Findings from the 2005/06 British Crime Survey England and Wales*. Home Office Statistical Bulletin, RDSD. <http://www.homeoffice.gov.uk/rds/pdfs06/hosb1506.pdf>
- Rubin, H. J. and Rubin I. S. (1995) *Qualitative Interviewing: the Art of Hearing Data*, Thousand Oaks, CA: Sage
- Ruspini, E. *Introduction to Longitudinal Research* (2002) London: Routledge.
- Rutter, M. and Rutter, M. (1993) *Developing Minds. Challenge and continuity across the life span*, London: Penguin.

Sale, E., Sambrano, S., Springer, J. F. and Turner, C. W. (2003) 'Risk, protection, and substance use in adolescents: a multi-site model'. *Journal of Drug Education* 33(1): 91-105.

Sampson, R. J. and Laub, J. H. (1993) *Crime in the Making: Pathways and turning points through life*. Cambridge: Harvard University Press.

Sampson, R. J. and Laub, J. H. (2005) 'Seductions of Method: rejoinder to Nagin and Tremblay's 'Developmental trajectory groups: fact or fiction?'' *Criminology* 43 (4): 905.

Schensul, S. L., Schensul, J. L., and LeCompte, M. D. (1999) *Essential Ethnographic Methods: Observations, Interviews and Questionnaires*. Walnut Creek: Sage.

Schmitt, R. L. and Grupp, S. E. (1973) in: Grupp, S. E. (1973) *The marijuana muddle*. Lexington books, Lexington, Massachusetts.

Scottish Executive (2002) *Young people and crime in Scotland: Findings from the 2000 Scottish Crime Survey*. Edinburgh: The Scottish Executive Central Research Unit. <http://www.scotland.gov.uk/cru/kd01/green/ypac-00.asp>

Scottish Executive (2004) *Supporting Safer, Stronger Communities: Scotland's Criminal Justice Plan*. Edinburgh: Scottish Executive. <http://www.scotland.gov.uk/Resource/Doc/30859/0031627.pdf>

Scottish Office (1999) *Tackling Drugs in Scotland: Action in Partnership*. Edinburgh: Scottish Office. <http://www.scotland.gov.uk/library/documents-w7/tdis-04.htm>

Seddon, T. (2005) 'Drugs, Crime and Social Exclusion: Social Context and Social Theory in British Drugs-Crime Research.' *British Journal of Criminology* 46 (4): 680-703.

Shader, M. (2003) 'Risk Factors for Delinquency: an overview'. Office of Juvenile Justice and Delinquency Prevention. http://www.ncjrs.gov/html/ojjdp/jjjournal_2003_2/index.html

Shildrick, T. (2002) 'Young people and illicit drug use in post-modern times?' in: Cieslik, M. and Pollock, G. (2002) *Young people in risk society: the restructuring of youth identities and transitions in late modernity*. Aldershot: Ashgate.

Sieving, R.E., Perry, C.L., and Williams, C.L. (2000) 'Do friendships change behaviours, or do behaviours change friendships? Examining paths of influence in young adolescents' alcohol use.' *Journal of Adolescent Health* 26 (1): 27-35.

- Silbereisen, R. K., Robins, L. and Rutter, M. (1995) 'Secular Trends in Substance Use: Concepts and Data on the Impact of Social Change in Alcohol and Drug Abuse.' in Rutter, M. and Smith, D. J. (eds.) *Psychosocial disorders in young people: time trends and their causes*. Chichester: Wiley.
- Simons, R. L., Whitbeck, L. B., Conger, R. D. and Conger, K. J. (1991) 'Parenting factors, social skills, and value commitments as precursors to school failure, involvement with deviant peers, and delinquent behavior.' *Journal of Youth and Adolescence* 20 (6): 645-664.
- Simons-Morton, B.G. (2002) 'Prospective analysis of peer and parent influences on smoking initiation among early adolescents.' *Prevention Science* 3(4): 275-83.
- Simpson, M. R. (2003) 'The relationship between drug use and crime: a puzzle inside an enigma' *International Journal of Drug Policy* 14 (4): 307-319.
- Simpson, M. R. (2003b) *An ethnographic study exploring the relationship between drug use and crime amongst a sample of young people from a town in the northeast of England*. Unpublished PhD thesis.
- Smith, D. J. (1996) *Edinburgh Study of Youth Transitions and Crime: Research Proposal* (First three years). Edinburgh.
- Smith, D. J. (2004a) *Parenting and Delinquency at Ages 12 to 15*. Centre for Law and Society, University of Edinburgh.
- Smith, D. J. (2004b) *The Links between Victimization and Offending*. Centre for Law and Society, University of Edinburgh.
- Smith, D. J. and Bradshaw, P. (2005) *Gang membership and teenage offending*. Centre for Law and Society, University of Edinburgh.
- Smith, D. J., and McVie, S. (2003) 'Theory and Method in the Edinburgh Study of Youth Transitions and Crime.' *British Journal of Criminology* 4: 169-195.
- Sokol-Katz, J., Dunham, R., and Zimmerman, R. (1997) 'Family structure versus parental attachment in controlling adolescent deviant behaviour: a social control model.' *Adolescence* 32 (125):199-215.
- South, N. (2002) 'Drugs, Alcohol, and Crime' in: Maguire, M. Morgan, R. and Reiner, R. (eds.) *The Oxford Handbook of Criminology*. Oxford: Clarendon Press.
- Spencer, L., Ritchie, J. and O'Connor, W. 'Analysis: Practices, Principles & Processes' in Ritchie, J. and Lewis, J. (eds.) *Qualitative Research Practices: a Guide for social science Students and Researchers*. London: Sage.

Stacy, A. W. and Newcomb, M. D. 'Long-term social-psychological influences on deviant attitudes and criminal behaviour.' In: Kaplan, H. B. (ed.) (1995) *Drugs, Crime, and Other Deviant Adaptations, Longitudinal Studies*. New York: Plenum Press.

Steinberg, L., Fletcher, A., and Darling, N. (1994) 'Parental monitoring and peer influences on adolescent substance use.' *Paediatrics* 93 (6): 1060-4.

Sutherland, E. (1939) *Principles of Criminology* 3rd ed. Philadelphia: Lippincott.

Sutherland, I. and Shepherd, J. P. (2001) 'Social dimensions of adolescent substance use'. *Addiction* 96 (3): 445-58.

Svensson, R. (2003) 'Gender differences in adolescent drug use: the impact of parental monitoring and peer deviance.' *Youth and Society* 34 (3): 300-329.

Sykes, G. M. and Matza, D. (1957) 'Techniques of Neutralization: a theory of delinquency' *American Sociological Review* 22 (6): 664-670.

Thornberry, T. P. (1987) 'Toward an interactional theory of delinquency' *Criminology* 23 (4): 863-891.

Thornberry, R. P. and Krohn, M. D. (1997) 'Peers, Drug Use, and Delinquency' in: Staff, D. M. (ed.) *Handbook of Antisocial Behaviour*. New York: Wiley.

Tildesley, E. A., Hops, H., Ary, D. and Andrews, J. A. (1995) 'Multitrait-Multimethod Model of Adolescent Deviance, Drug Use, Academic, and Sexual Behaviours.' *Journal of Psychopathology and Behavioral Assessment* 17 (2): 185-215.

Tsuang, M. T., Lyons, M. J., Eisen, S. A., Golderb, J., True, W., Lin, N., Meyer, J. M., Toomey, R., Faraone, S. V., and Eaves, L. (1998) 'Genetic influences on DSM-III-R drug abuse and dependence: A study of 3,372 twin pairs'. *American Journal of Medical Genetics: Neuropsychiatric Genetics* 67(5): 473-477

Tubman, J. G., Gil, A. G. and Wagner, E. F. (2004) 'Co-occurring substance use and delinquent behavior during early adolescence: Emerging relations and implications for intervention Strategies.' *Criminal Justice and Behavior* 31 (4): 463-488.

van den Bree, MB, Johnson, EO, Neale, M. C., and Pickens, R.W. (1998) 'Genetic and environmental influences on drug use and abuse/dependence in male and female twins.' *Drug and Alcohol Dependence* 52 (3): 231-241.

Wagner, E. F. (1996) 'Substance Use and Violent Behaviour in Adolescence.' *Aggression and Violent Behaviour* 1 (4): 375-387.

Walters, G. D. (1994) *Drugs and Crime in Lifestyle Perspective*. Drugs, Health, and Social Policy Series. California: Sage.

Welte, J. W., Zhang, L., and Wieczorek, W. F. (2001) 'The Effects of Substance Use on Specific Types of Criminal Offending in Young Men.' *Journal of Research in Crime and Delinquency* 38 (4): 416-434.

White, H. R. (1990) 'The drug use delinquency connection in adolescence.' In: Weisheit, R. (ed.) *Drugs, Crime and the Criminal Justice System*. Cincinnati, Ohio: Anderson Pub Co., Criminal Justice Division.

White, H. R., Brick, J. and Hansell, S. (1993) 'A Longitudinal Investigation of Alcohol Use and Aggression in Adolescence.' *Journal of Studies on Alcohol Supplement* 11: 62-77.

White H. R. and Gorman, D. M (2000) 'Dynamics of the Drug-crime Relationship' in *Criminal Justice 2000 Volume 1: The nature of Crime: Continuity and Change* :151-218. <http://www.cjtoday.com/pdf/7cjt1505.pdf>

White, H. R. and Hansell, S. (1996) 'The Moderating Effects of Gender and Hostility on the Alcohol-Aggression Relationship' *Journal of Research in Crime and Delinquency*, 33 (4): 450-470.

White, H. R. and Hansell, S. (1998) 'Acute and long-term effects of drug use on aggression from adolescence into adulthood' *Journal of Drug Issues* 28 (4): 837-858.

White, H. R., Johnson, V. and Garrison, C. G. (1985) 'The Drugs-Crime Nexus among Adolescents and their Peers' *Deviant Behaviour* 6:183-204.

White, H. R., and Labouvie, E. W. (1994). 'Generality versus specificity of problem behavior: Psychological and functional differences'. *Journal of Drug Issues* 24: 55-74.

White, H. R., Pandina, R. J. and LaGrange, R. L. (1987) 'Longitudinal predictors of serious substance use and delinquency.' *Criminology* 25 (3): 715-740.

White, H. R., Tice, C. P., Loeber, R. and Stouthamer-Loeber, M. (2002) 'Illegal Acts Committed by Adolescents under the influence of alcohol and drugs.' *Journal of Research in Crime and Delinquency* 39 (2): 131-152.

Wiklund, N. and Lidberg, L. (1990) 'Alcohol as a causal criminogenic factor: the Scandinavian experience.' in: Bluglass, R., Bowden, P. and Walker, N. (eds.) *Principles and Practice of Forensic Psychiatry*. London: Churchill Livingstone.

Williams, L and Parker, H. (2001) 'Alcohol, cannabis, ecstasy and cocaine: Drugs of reasoned choice amongst young adults in England' *International Journal of Drugs Policy* 12 (516): 397-413.

- Windle, M. (1990) 'A longitudinal study of antisocial behaviours in early adolescence as predictors of late adolescent substance use: Gender and ethnic group differences'. *Journal of Abnormal Psychology* 99: 86-91.
- Wish, E. D. and Johnson, B. D. (1986) 'The Impact of Substance Abuse on Criminal Careers.' in: Blumstein, A., Cohen, J., Roth, J. A., and Visher, C. A. (eds.) *Criminal Careers and 'Career Criminals' Volume II*. Washington: National Academy Press.
- Wright, D.R., and Fitzpatrick, K.M. (2004) 'Psychosocial correlates of substance use behaviours among African American youth.' *Adolescence* 39(156):653-67.
- Yacoubian, G. S. Jr and Kane, R. J. (1998) 'Identifying a drug use typology of Philadelphia arrestees: A cluster analysis.' *Journal of Drug Issues* 28 (2): 559-574.
- Yanovitzky, I. (2005) 'Sensation seeking and adolescent drug use: the mediating role of association with deviant peers and pro-drug discussions.' *Health Communications* 17(1): 67-89.
- Young, J. (1971) *The Drugtakers: The social meaning of drug use*. London: Paladin.
- Young, S. E., Stallings, M. C., Corlen, R. P., Krauter, K. S., and Hewitt, J. K. (2000) 'Genetic and environmental influences on behavioral disinhibition' *American Journal of Medical Genetics: Neuropsychiatric Genetics* 96 (5): 684-695.
- Zuckerman, M. (1979) *Sensation seeking: beyond the optimal level of arousal*. Hillsdale NJ: Erlbaum Associates.

APPENDIX A: DETAILS OF THE MAKE-UP OF VARIABLES

Weekly smoking

This binary weekly smoking (versus less than weekly smoking) variable was derived from these questions:

At sweep one respondents were asked:

Which of these statements best describes you?

I have never tried a cigarette (not even a puff);

I have tried smoking cigarettes, but I don't smoke now;

I smoke cigarettes, but less than once a week;

I smoke cigarettes at least once a week;

or I smoke cigarettes every day.

From sweeps two to six respondents were asked:

did you smoke a cigarette during the last year?

If yes they were asked how often do you smoke now?
every day;

at least once a week;

at least once a month;

or hardly ever or never.

Weekly drinking

This binary weekly drinking (versus less than weekly drinking) variable was derived from these questions:

At sweep one respondents were asked:

Which of these statements best describes you?

I have never tried an alcoholic drink (not even a sip);

I have tried drinking alcohol, but I don't drink now;

I drink alcohol, but only on special occasions;

I drink alcohol, but less than once a month;

I drink alcohol at least once a month;

or I drink alcohol at least once a week.

From sweeps two to six respondents were asked:

did you drink an alcoholic drink during the last year?

If yes they were asked how often do you drink alcohol now?
every day; a few times a week;

at least once a week; at least once a month;

only on special occasions; or hardly ever or never.

Drug use

Drug use variables were derived from the following questions:

At sweep one, respondents were asked:

Have you ever tried any illegal drug (that includes sniffing gas or glue)?

If yes they were asked how often (never, once, two or three times, or four or more times) have you tried each of these (cannabis, glue or gas, ecstasy, cocaine, speed, heroin, LSD, magic mushrooms, downers or something else (if something else please say what) drugs?

At sweeps two, three and four respondents were asked:

During the last year did you take or try any illegal drugs (that includes sniffing gas or glue)?

If yes, how often (never, once, two or three times, four or more times) have you tried each of these drugs (cannabis, glue or gas, ecstasy, cocaine, speed, heroin, LSD, magic mushrooms, downers, poppers or something else (please say what) in the last year?

From Sweep three onwards semeron (bogus drug) was included in the above list.

At sweep five respondents were asked how often (never, once, two or three times, four to ten times, more than ten times) they had tried each of the above drugs during the last year.

At sweep six respondents were asked about illegal drugs and prescription drugs. How often (every day; at least once a week; at least once a month; less than once a month; or never) have you used each of these drugs (cannabis; glue, gas or other solvents; ecstasy; semeron; cocaine; speed; heroin; LSD; magic mushrooms; downers; poppers; something else (please say what)) during the last year?

Then respondents were asked: how often (every day, at least once a week, at least once a month, less than once a month, never) have you abused (whether they were prescribed to you or someone else) each of these prescription drugs (temazepam, valium, Ritalin, DF118s, methadone, physeptone) during the last year?

Volume of drug use is a count measure derived by totalling up the self-reported use of each drug as derived from the above questions.

Ordinal versions were subsequently derived from volume of drug use measures.

Offending

Volume of self-reported offending

A count of the number of occasions a person had engaged in a delinquent act.

The volume measure is not exact because answers were grouped. It tends to be an under-estimate because the top category of 10+ was interpreted as 11.

Ordinal measure of self-reported offending was subsequently derived from the above volume measure

The prevalence of self-reported offending measures used in section 2.1 included 10 items at age 12 and 11 items from age 13 to 17. This was in order that they were as comparable as possible over this time period. If a measure of offending which included all items of self-reported delinquency collected at each sweep had been used the pattern may have reflected the number of items measured rather than the change in prevalence of offending.

These items included: shoplifting; being noisy or cheeky in public; joyriding; carrying a weapon; damage to property; housebreaking; robbery (theft with force or threats); fire-raising; assault; car-breaking; and hurting or injuring animals (not included at sweep 1).

For comparison over the six sweeps of the study, eleven items covering different types of delinquency were used. These were the eleven items that remained exactly the same at all six sweeps (except one of them, harming animals, was not included at sweep 1). These 11 constant items can be regarded as the central ones in describing the mainstream of teenage delinquent behaviour. The broad measure of delinquency covers all eleven items.

The volume measure of broad delinquency counts the number of times that a person engaged in any of these forms of behaviour over a 12-month reference period.

Cohort members were asked to rate the seriousness of each type of behaviour. The seven types of behaviour considered most serious have been used to construct a measure of the volume of serious delinquency. This measure is not precise because a particular type of offending may encompass a wide range (e.g. the seriousness of damage to property varies depending on the extent and value of the damage done).

The age of onset of offending variable (section 2.2) was created using offending measures which included all offending items (excluding truancy) that were measured at each sweep (14 items at age 12, 15 at age 13, 17, at ages 14, 15 and 17, and 16 at age 16).

In order that patterns over the teenage years were comparable the average volume of self-reported offending variables used in section 3.1 included 10 items at age 12 and 11 items from age 13-17.

Binary variables (involvement in offending or not) used in sections 3.2, 3.3 and 3.4 refer to 10 items at age 12 and 11 items from age 13 to 17

Age 12 (14 items), Age 13 (15 items), Age 14 (17 items), Age 15 (17 items), Age 16 (16 items), Age 17 (17 items)

Question	Sweep
Did you set fire or tried to set fire to someone's property?	1-6
Were you noisy or cheeky in public so that got in trouble/ people complained?	1-6
Did you travel on a bus or train without paying/paying wrong fare?	1-5
Did you break into a car or van to steal something out of it?	1-6
Did you write or spray paint on property that did not belong to you?	1-5
Did you break into/try to break into house or building to steal something?	1-6
Did you hit, kick or punch someone on purpose (fight with them)?	1-6
Did you steal money or something else from your home?	1-4
Did you steal or ride in a stolen car, van or motorbike?	1-6
Did you use force, threats or a weapon to steal something from someone?	1-6
Did you steal money or something else from school?	1-4
Did you steal something from a shop or store without paying?	1-6

Did you deliberately damage or destroy property that did not belong to you?	1-6
Did you carry a knife/other weapon for protection or in case needed in fight?	1-6
Did you hurt or injure any animals or birds on purpose?	2-6
Did you sell an illegal drug to someone?	3-6
Did you hit or pick on someone because of their race or skin colour?	3-6
Did you sell stolen goods	5-6
Did you claim social security benefit/housing benefit you weren't entitled to?	6
Did you use stolen cheque book/credit/cash card to get money or buy something?	6
Did you buy something that you knew or suspected was stolen?	6

Serious offending

Items included in this measure of serious offending were: fire-raising; damaging property; housebreaking; robbery (theft with force or threats); car breaking; joyriding; or carrying a weapon.

These items were those rated as the most serious by respondents at the sweep two questionnaire.

Gender

Binary variable: male or female

Socio-economic status

This binary measure of family socio-economic status was created by classifying parental occupation as non-manual or manual/unemployed.

Cohort member's descriptions of their parents' occupations at sweep one were coded using the Registrar General Social Classification Scheme. The socio-economic group (SEG) of the parent in the highest class grouping (with full-time workers taking precedence over part-time workers) was assigned to the cohort member. Socio-economic group could only be assigned to 61% of the cohort but the parents' survey at sweep four provide more precise and up to date information on SEG for 70% of the cohort. Sweep four information was used, with sweep one data substituted where sweep four data was missing. This gave a socio-economic group code for 88% of cohort members. To make the analysis simpler and allow for error, the respondents were divided into two broad social class groupings depending on whether their parents' occupation was classed as 'non-manual' (SEG I, II and IIIa) or 'manual or unemployed' (SEG IIIb, IV, V and unemployed). Cohort members who could not be classified because they were in care were put into the category 'manual or unemployed'.

Neighbourhood deprivation score

Variables from the 1991 census were used to create the 91 Edinburgh neighbourhoods to which cohort members were allocated. Updated data from the

2001 census was used to create a measure of economic deprivation covering rates of unemployment, local authority renting, single parents and overcrowding. The measure of economic deprivation variable included: the percentage of population who are out of work; the percentage of households in local authority housing; the percentage of households consisting of lone parents with dependent children; the percentage of households with more than one person per room.

Family structure: not living with two parents

A binary measure indicating whether the cohort member lives with both parents or not.

Low parental monitoring

Sweep two: low parental monitoring score 0-9

Derived from: when you went out during the past year how often did your parents know where you were going;
who you were going with;
what time you would be home;

Sweeps four and five

Derived from: when you went out during the last year how often did your parents know:

where you were going;
who you were going with;
what you were doing;
what time you would be home? (always, usually, sometimes, never).

At sweep four this low parental monitoring score (0-30) was a combined measure, that is it included information from the parents questionnaire.

Sweep five low parental monitoring score (0-12)

Parent-child conflict

Sweep 2 parent-child conflict score 0-18

Derived from six items on how often disagree or argue with parents

How often do you disagree or argue with your parents about each of these things?

argue about homework;
argue about my friends;
argue about how tidy my room is;
argue about what time I get in;
argue about what I do when I go out;
argue about money.

(most days, at least once a week, less than once a week, never or hardly ever).

Sweeps four and five

How often do you argue with your parents about each of these things?:

argue about how tidy your room is?;
argue about what you do when you go out?;
argue about what time you come home?;
argue about who you hang about with?;
argue about your clothes or appearance?;

argue about other things? (most days, at least once a week, less than once a week, never or hardly ever).

At sweep four this measure was combined with a similar measure from the parents' survey. combined parent child conflict 0-36

At sweep five, conflict with parents scale 0-18

Stressful life events

Sweep three, stressful life events score

During the last year did any of these things happen to you?

my family moved house;

a close member of my family was seriously ill;

a close member of my family died;

my parents split up or divorced;

my mum stopped living with me;

my dad stopped living with me;

I went to live with someone else. (yes or no)

Bad relationship with teachers

Sweep two derived from:

how many teachers in the past year:

did you get on well with; helped you to learn;

treated you fairly;

could you ask for help if you had a problem with school work;

could you ask for help about a personal problem;

treated you like a trouble maker.

(none of them, some of them, most or all of them)

Sweeps four and five

During the last school year how many of your teachers ... ?

Did you get on well with;

treated you like a troublemaker;

did you feel you could trust;

did not listen to you or respect you;

praised you if you had done well. (

none of them, one or some, most of them)

Low importance of school

Sweep two low importance of school scale (0-16) derived from:

how much do you agree or disagree with these sentences about school?:

school is a waste of time;

working hard at school is important;

I feel safe at school;

school will help me get a good job.

(agree a lot, agree a bit, not sure, disagree a bit, disagree a lot)

Sweeps four (0-32) and five (0-16) derived from:

how much do you agree or disagree with these sentences about school:

school is a waste of time;

school teaches me things that will help me in later life;
 working hard at school is important;
 school will help me get a good job.
 (agree a lot, agree a bit, not sure, disagree a bit, disagree a lot)

Moral beliefs accepting of offending

Sweep one (0-24)

When do you think it is OK to tell a lie?:

- it's ok to tell a lie if it doesn't hurt anybody;
- it's ok to lie to keep your friends from getting into trouble;
- it's ok to lie to stop you from getting into trouble;
- it's ok to lie if nobody finds out you did it. (yes or no)

When do you think it is OK to take or steal something from somebody?:

- it's OK to take something from somebody who is rich and can afford to replace it; it's ok to take little things from a shop without paying for them because shops make a lot of money;
- it's ok to take someone's bike without asking if you intend to give it back;
- it's ok to steal if nobody finds out you did it.

When do you think it is OK to hurt or fight with somebody?

- It's ok to hurt someone if you didn't mean to do it or if it was an accident;
- it's ok to fight with someone if they hit you first;
- it's ok to fight with someone if they insult your friends or family;
- it's ok to fight because everyone my age does it.

Sweep 4 score (0-26) as above but added:

when do you think it is OK to fight with somebody:

it's ok to hurt someone if you didn't mean to do it or it was an accident taken out.

- It's ok to fight when it's the only way to settle an argument and it's ok for a man to hit a woman if she nags or annoys him added.

zsdokto8 total moral disengagement score 0-26

Named best friend's volume of offending

As part of the sweep three and sweep five questionnaires respondents were asked to name their three best friends from their own school year. It was possible to identify named friends as members of the cohort in most cases. This provides a direct measure of friends' offending. First named best friend's self-reported offending is used for the purposes of this research.

Analyses at sweep two refer to the first friend (named at sweep three)'s self-reported volume of offending at sweep two.

Analyses at sweep four refer to the first friend (named at sweep five)'s self-reported volume of offending at sweep four.

Analyses at sweep five refer to the first friend (named at sweep five)'s self-reported volume of offending at sweep five.

Named best friend used drugs

(see above)

Binary measure of whether named best friend reported they had used drugs or not.

Analyses at sweep two refer to whether the first friend (named at sweep three) had used drugs at sweep two.

Analyses at sweep four refer to whether the first friend (named at sweep five) had used drugs at sweep four.

Analyses at sweep five refer to whether the first friend (named at sweep five) had used drugs at sweep five.

Gang membership

Binary variable, gang member (non gang member)

Sweep two and sweep five derived from:

Would you call the group of friends you usually hang around with a 'gang'?
(yes or no)

Hanging around score

Sweep 2 hanging around score (0-6)

Derived from: How often do you just hang around these areas in the evening?

hang around the area where I live;

hang around other areas (away from where I live)

(most evenings, at least once a week, less than once a week, hardly ever or never).

Sweeps four and five hanging around score (0-12)

How often do you hang around these areas in the evenings or at weekends?

I hang around the area where I live;

I hang around other areas of Edinburgh;

I hang around Edinburgh city centre;

I hang around areas outside Edinburgh.

(most evenings, at least once a week, less than once a week, hardly ever or never).

APPENDIX B RELATING TO CHAPTERS FOUR, FIVE AND SIX**APPENDIX B 1 INFORMATION RELATING TO CHAPTER 4****Frequency of smoking**

Age	up to 12	13	14	15	16	17
Non-smoker	82	76	60	56	53	50
Monthly/ occasional smoking	15	15	23	22	20	21
Weekly smoking	2	3	5	5	5	5
Daily smoking	1	5	13	17	23	25

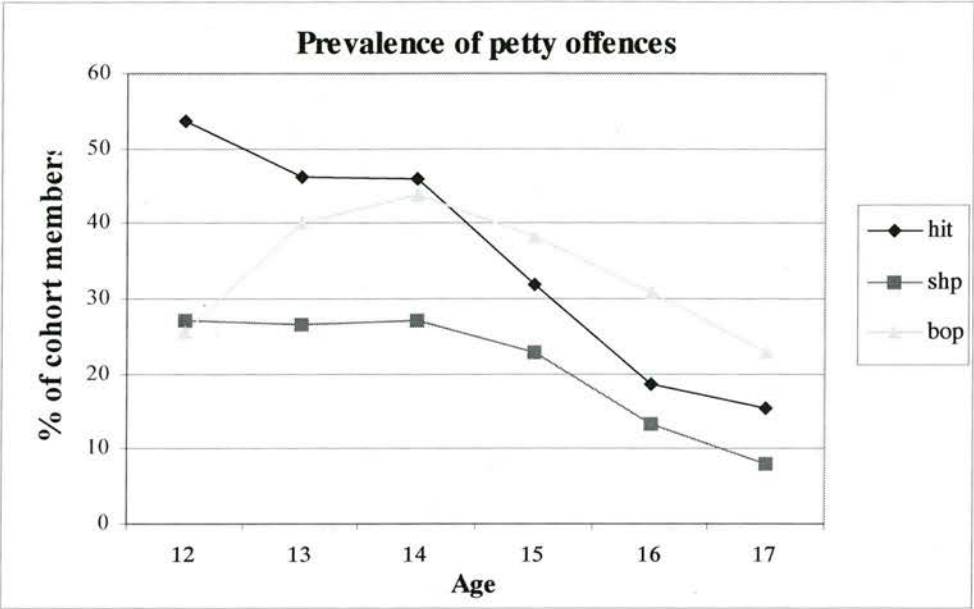
Odds ratios for use of pairs of substances

Age	smoking +drinking	smoking +drugs	drinking +drugs
12	17.1	15.1	9.8
13	8	15.7	10.6
14	7.4	13.1	6.6
15	6.3	12.4	5.7
16	4.9	7.7	4.8
17	4	8.9	3.9

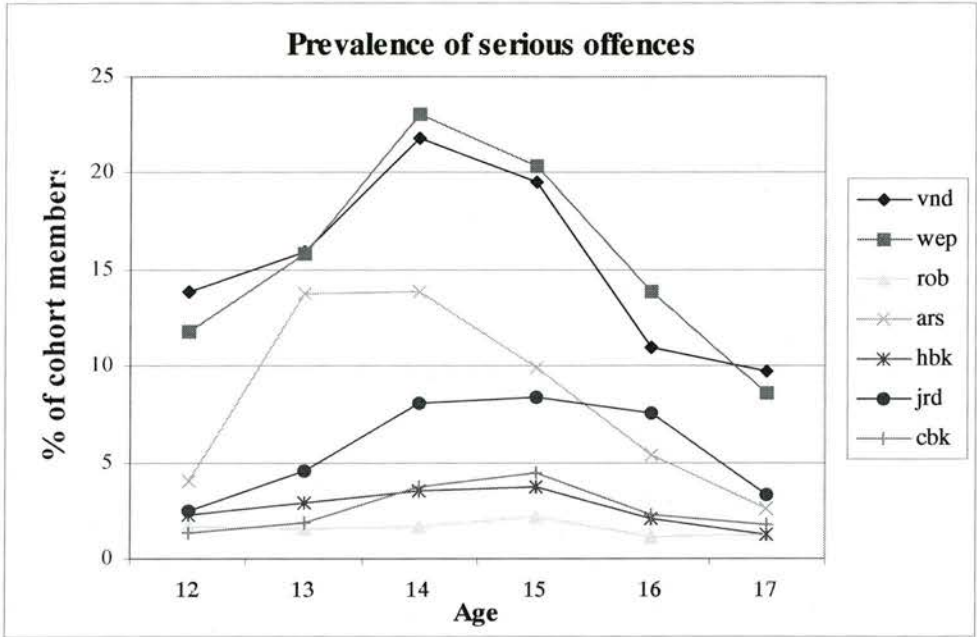
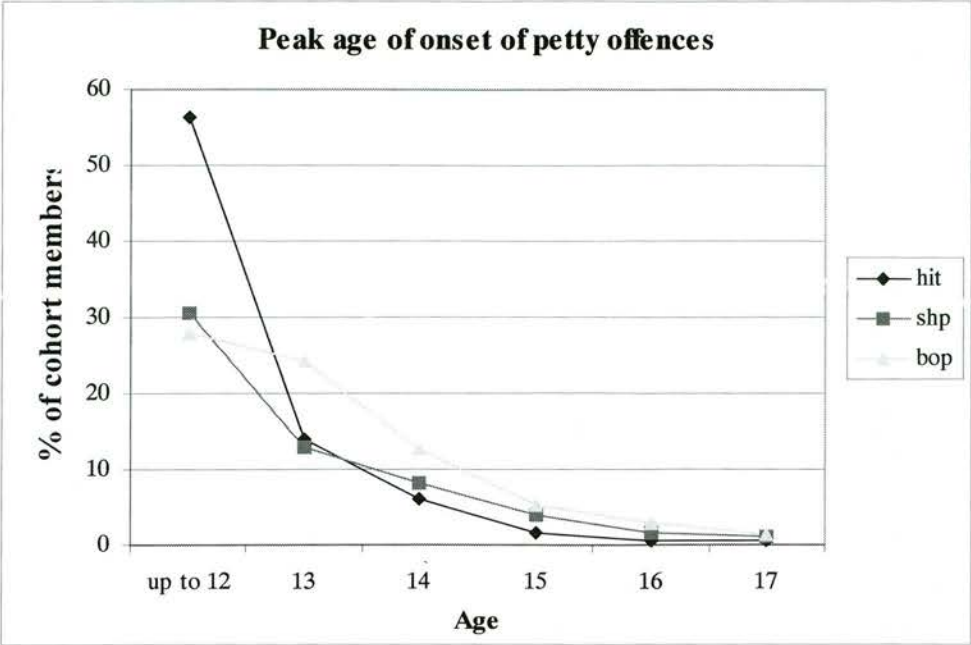
The odds ratio is a measure of effect size. It is the ratio of the odds of an event occurring in one group, to the odds of it occurring in another group. Here is an example of how the odds ratio of 17.1 for weekly smoking and weekly drinking at age 12 was calculated. The odds ratio was calculated by (refer to table below): 1) dividing the number of weekly drinkers who smoked weekly (d) by the number of weekly drinkers who did not smoke weekly (b) ($d/b = 20/50 = 0.4$ = the odds of weekly drinkers smoking weekly); 2) dividing the number of non-weekly drinkers who smoke weekly (c) by the number of non-weekly drinkers who did not smoke weekly (a) ($c/a = 95/4053 = 0.0234$ = the odds of non-weekly drinkers smoking weekly). Then divide the odds of weekly drinkers smoking weekly by the odds of non-weekly drinkers smoking weekly ($0.4 / 0.0234 = 17.1$). 17.1 is the ratio of the odds of weekly drinkers smoking weekly, to the odds of non-weekly drinkers smoking weekly [$(d/b) / (c/a)$ or $(20/50) / (95/4053) = 17.1$]. It is the same if we look at it the other way around, i.e. 17.1 is also the ratio of the odds of weekly smokers drinking weekly to the odds of non-weekly smokers drinking weekly. [$(d/c) / (b/a)$ or $(20/95) / (50/4053) = 17.1$]. Therefore, the odds ratio can be represented and calculated more simply as $(a \times d) / (c \times b)$. In other words, the odds that those who engaged one of these behaviours (weekly drinking or weekly smoking) at age 12 engaged in the other behaviour at the same age were 17.1 times the odds that those who did not engage in one of these behaviours (weekly drinking or weekly smoking) engaged in the other behaviour.

Weekly smoking by weekly drinking at age 12

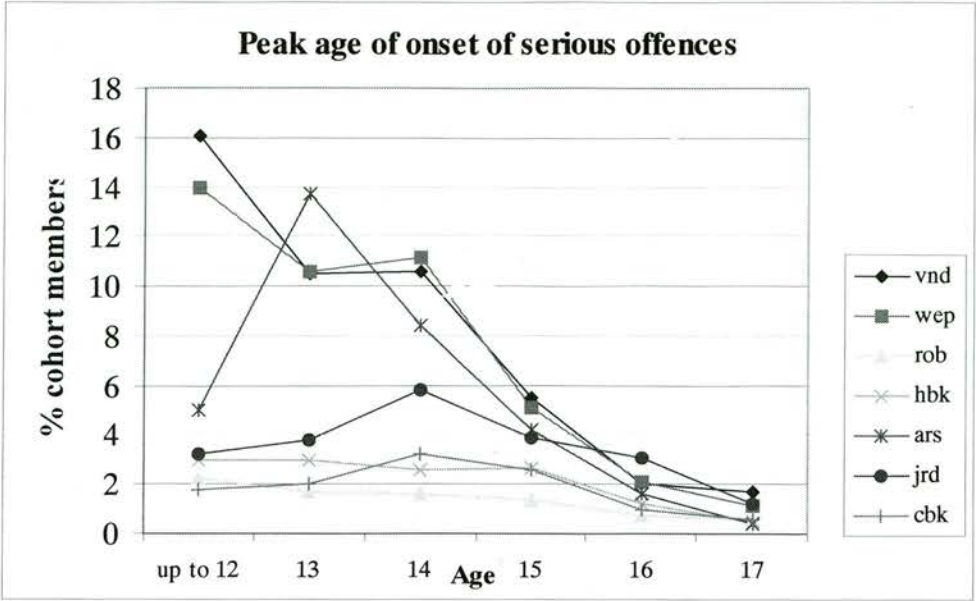
	Not weekly drinker	Weekly drinker
Not weekly smoker	4053 (a)	50 (b)
Weekly smoker	95 (c)	20 (d)



hit=assault; shp=shoplifting; and bop=noisy or cheeky in public.



vnd=damaging property; wep=carrying a weapon; rob=robbery (theft with force or threat); ars= fire-raising; hbk=housebreaking; jrd=joyriding; cbk=car-breaking.



Comparing mean frequency of self-reported offending for categories of substance user

	Age					
	12	13	14	15	16	17
'other' drug use last year	24.3	33.7	25.4	20.8	12.1	8.5
not used 'other' drugs last yr	4.8	5.1	6.3	4.8	3.2	2.0
drug use 4+times last year	21.9	27.8	23.1	16.7	9.8	7.7
not used drugs 4+times	4.8	4.9	5.6	3.9	2.7	1.5
cannabis use last year	22.8	23.3	20.0	13.9	7.9	5.7
not used cannabis last yr	4.6	4.6	5.2	3.5	2.2	1.3
any drug use last year	16.0	20.9	18.0	13.0	8.2	5.2
not used drugs last year	4.4	4.5	4.8	3.4	2.4	1.2
weekly drinking in last year	21.1	17.6	19.1	14.3	7.4	4.4
not weekly drinking in last year	4.9	4.9	5.5	4.2	2.4	1.7
weekly smoking in last year	21.3	16.5	18.5	13.9	8.7	5.5
not weekly smoking in last year	4.7	4.7	5.7	4.6	2.9	1.9

Mean volume of offending for cohort as a whole

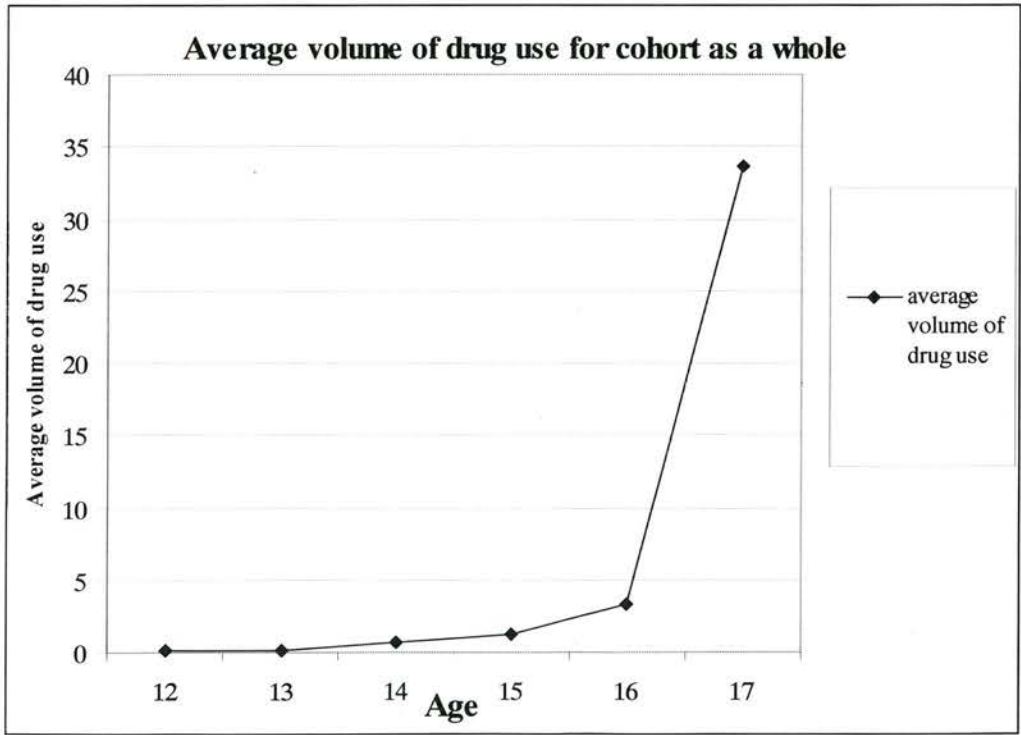
	Age 12	13	14	15	16	17
Average volume of offending	5.1	5.7	7.9	6.6	4.5	3

Comparing mean frequency of drug use for offenders versus non-offenders

	Age 12	Age 13	Age 14	Age 15	Age 16	Age 17
Offending /no offending						

Engaged in serious offendnig in last year	0.5	0.7	1.6	2.6	7.3	90.3
not engaged in serious offending	0.1	0.1	0.2	0.6	1.9	20.7

Offended in last year	0.2	0.3	1	1.9	5.5	60.7
not offended in last year	0	0	0.1	0.3	1.2	16.3

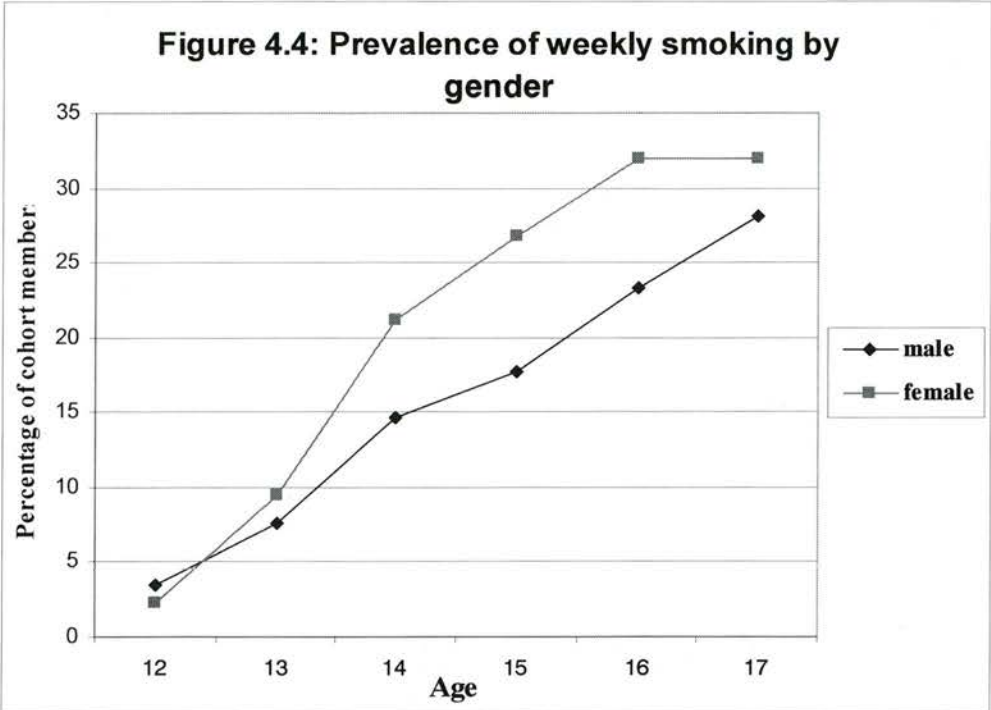


Average volume of drug use for cohort as a whole						
	Age 12	13	14	15	16	17
average volume of drug use	0.2	0.2	0.7	1.2	3.3	33.6

APPENDIX B 2

Prevalence of self-reported substance use by gender

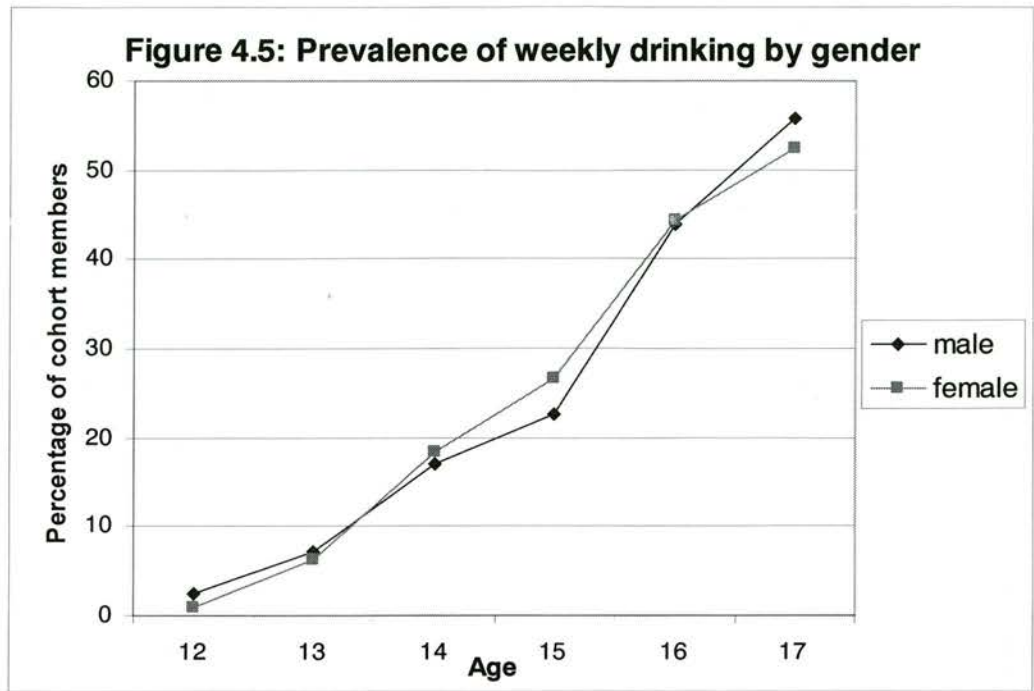
This section looks at whether patterns of prevalence of different types of substance use vary by gender over the teenage years. Details of levels of statistical significance for gender differences in prevalence of substance use can be found under each relevant figure. At age 12 a larger percentage of male cohort members reported smoking cigarettes on a weekly basis as compared to females. However, from age 13 onwards a larger percentage of females had smoked cigarettes on a weekly basis in the last year as compared to males. The difference was particularly marked at age 14, 15 and 16, as shown in the figure below. At age 15, 27% of female cohort members smoked on a weekly basis as compared to 18% of males. In other words, females were one and a half times as likely as males to have smoked cigarettes on a weekly basis at the age of 15. The gap between females and males widens at age 14 and narrows at age 17. This suggests that females tend to start smoking cigarettes on a weekly basis earlier than males. Between the ages of 16 and 17 the prevalence of smoking among females levels off, whilst in males prevalence increases over this period.



Statistical significance of gender differences for prevalence of weekly smoking: age 12 $p<.05$; age 13 $p<.05$; age 14 $p<.001$; age 15 $p<.001$; age 16 $p<.001$; age 17 $p<.01$

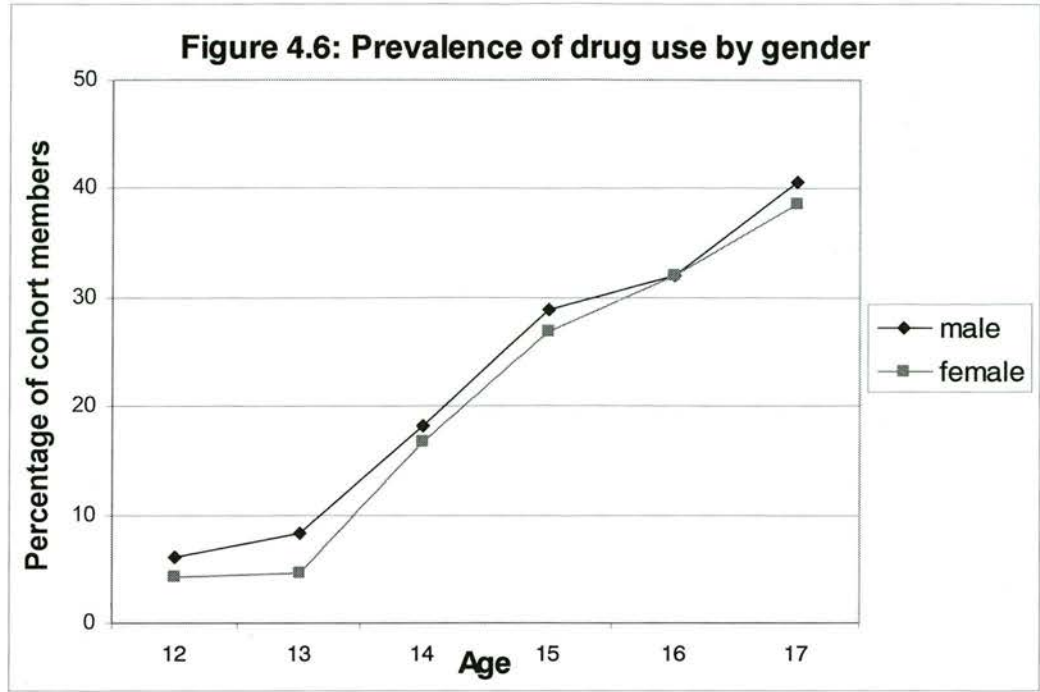
Patterns of the prevalence of weekly drinking over the teenage years were similar among males and females. At age 12 a larger proportion of male than female cohort members drunk alcohol on a weekly basis, yet at age 15 a slightly larger percentage of females drunk weekly. The differences between the proportion of male and female cohort members who drunk alcohol on a weekly basis at the ages of 13, 14 and 16 were not statistically significant. At age 17, whilst still underage, more

than half of male and female cohort members were drinking alcohol on a weekly basis.



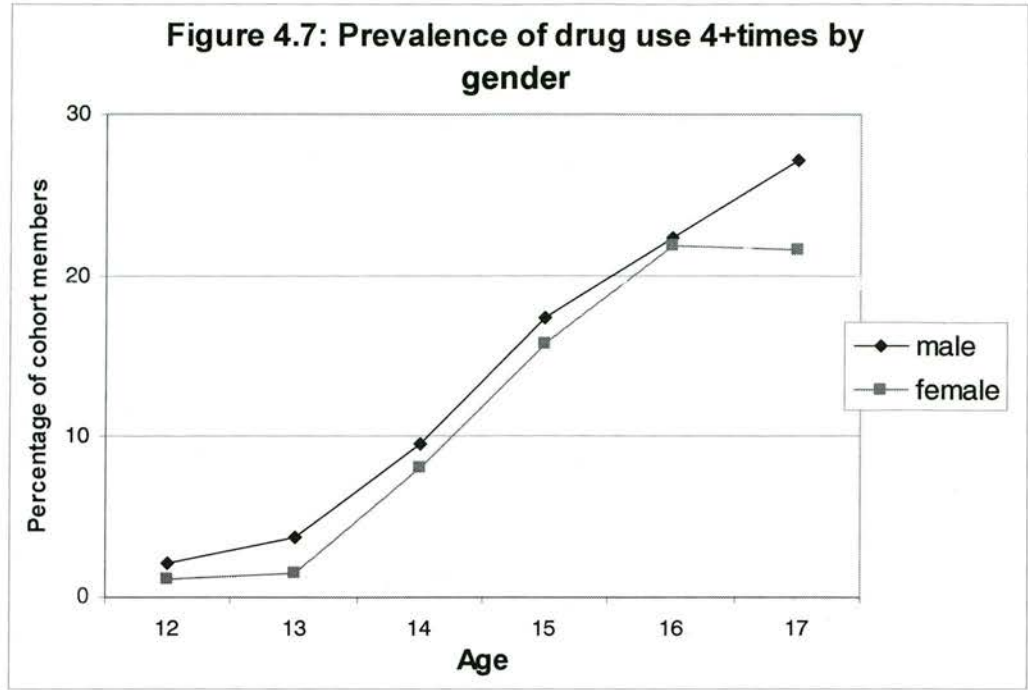
Statistical significance of gender differences for prevalence of weekly drinking: age 12 $p < .001$; age 13 non-significant; age 14 non-sig; age 15 $p < .01$; age 16 non-sig; age 17 $p < .05$

Patterns of the prevalence of drug use over the teenage years were also similar among males and females as the figure below shows. The prevalence of drug use was slightly higher for males than females at age 12. At age 13 males were almost twice as likely as females to have used drugs in the last year. The differences between the proportion of male and female cohort members who had taken drugs in the last year at the ages of 14, 15, 16, and 17 were not statistically significant. This suggests that boys start using drugs earlier and girls catch up at age 14.



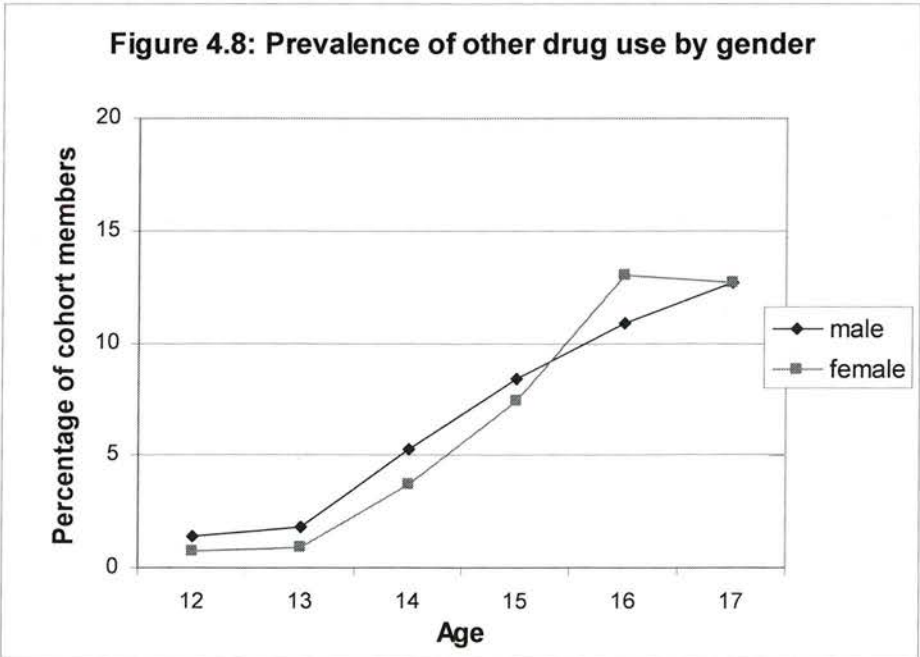
Statistical significance of gender differences for prevalence of drug use: age 12 $p<.05$; age 13 $p<.001$; age 14 non-sig; age 15 non-sig; age 16 non-sig; age 17 non-sig

The prevalence of more frequent drug use was higher for males than females at the ages of 12, 13 and 17. Males were two and a half times as likely as females to have used drugs four or more times in the last year at the age of 13. However, the differences between the proportion of male and female cohort members who had taken drugs more frequently in the last year at the ages of 14, 15, and 16 were not statistically significant. At age 17, 27% of male cohort members had used drugs at least monthly in the last year, compared to 22% of female cohort members. Between the ages of 16 and 17 the prevalence of frequent drug use among males increased, whereas for females it appeared to level off. However, this may be an artefact of the change in measurement. Perhaps the relative similarity in ‘frequent drug use’ among males and females between the ages of 12 and 16 was a result of the relatively low threshold of measurement (four or more times in the last year), i.e. males are more likely than females to have used drugs on a monthly or more frequent basis.



Statistical significance of gender differences for prevalence of frequent drug use: age 12 $p<.05$; age 13 $p<.001$; age 14 non-sig; age 15 non-sig; age 16 non-sig; age 17 $p<.001$

The prevalence of the use of other drugs was slightly higher for males than females at the ages of 12, 13 and 14. However, as figure 4.8 shows, at age 16 the percentage of female cohort members who used other drugs was slightly higher than males, before going back to match that of males at age 17. The differences between the proportion of male and female cohort members who had taken other drugs in the last year at the ages of 15 and 17 were not statistically significant.



Statistical significance of gender differences for prevalence of other drug use: age 12 $p<.05$; age 13 $p<.001$; age 14 $p<.05$; age 15 non-sig; age 16 $p<.05$; age 17 non-sig

APPENDIX B 3

Missing cases

When some of the analyses were run a significant number of cases were missing. This was especially true in relation to longitudinal ordinal regression analyses at later sweeps. The most severe example was the model using offending, drug use and other explanatory factors at age 15 to explain drug use at age 17. In this model 2102 cases were included in the analysis whilst 2495 were missing from the model. It was possible to compare the characteristics of the cases that were missing from the models, as compared to those that were included in the models. Males, drug users and offenders were more likely to be missing from the models than females, non-drug users and non-offenders.

Of the longitudinal models the best case scenario (in terms of having the least number of missing cases) was the model which used offending and other factors at age 13 to explain drug use at the same age. In this model 2637 cases were included in the analysis and 1960 were missing. Males, drug users and offenders were slightly more likely to have been missing from the models.

Weights were used to deal with the problem of bias due to missing cases.

Testing for parallelism

Parallelism was tested for in each of the models in order to see whether ordinal groups vary in parallel. Some of the models had a non-significant result, which is what we are looking for in order to be able to say the ordinal groups vary in parallel. However a number of the tests were significant. This is not surprising as the test is very sensitive and one is likely to get significant results.

Explaining drug use age 13 non-sig

Explaining offending age 13 non-sig

Explaining drug use age 16 sig $p=.004$

Explaining offending age 16 sig .000

Lagged model explaining drug use age 15 non-sig .647 State dependence model .639

Explaining offending age 15 $p=.155$ State dependence model .019

Lagged model explaining drug use age 17 .000 State dependence model .000

Lagged model explaining offending age 17 .000 State dependence model .000

APPENDIX C: INTERVIEW SCHEDULE

Introduction

Hi, I'm Liz, I'm doing research with The Edinburgh Study and I'm interested in young people's lifestyles and their experiences of drug use and offending. Everything you say will be completely confidential and of course it is anonymous. So please feel free to be as open as you can with me during our chat. I normally use a tape recorder, is that ok with you? It's just it's really hard to remember everything without it...

CURRENT SITUATION / LIFESTYLE

What are you doing with yourself at the moment?

How long? What last year? What next year?

What else do you do in a typical week (apart from work)?

What are the most important things in your life at the moment?

Who do you live with? and before? **What do they do?**

SMOKING / DRINKING / DRUG USE

Have you ever tried any of these substances? (show list)

If No: *do you know anyone who has? What is the difference between you and them? have you been offered/ tempted? Do you think you would ever try any?*

If Yes: **Which ones?** I write them down **Anything else** that's not on the list?

Do you smoke/drink alcohol/ use... drugs now?

If Yes: **-Could you describe your smoking/ drinking/ drug use at the moment?**

What? How much? How do you use/take it? How often? When?

Where? With whom? What else do you do while you are?

Tell me about (the first time) /how you started smoking/ drinking/ using drugs?

What? How much? how did it happen? Where were you?

Who were you with? What were you doing?

How did you get hold of it? What was it like?

how did you feel about it before and afterwards? how old were you?

What else was happening in your life around that time? (family? School?

Friends? Personal life? *What else were you doing?* (activities/ lifestyle drink/drugs/offending?)

Tell me about how your smoking/drinking/drug use changed since then, as you got older? *What did you used to smoke/drink/take? How much? How often? when? Where? With whom? What did you do get up to while drinking/ taking... drugs?*

What does drink/ ...each drug do for you? *How does it make you feel?*

Is that any different than it was the first time you tried it?

Which are the best and which are the worst?

Are there any drugs you would not take? How come?

Tell me about your best and worst experiences with alcohol/drugs?

Ever done anything that you should not have done while drunk/ on drugs?

Fights/ broken law?

How important is drinking/ drug use in your life? */what would your life be like without alcohol/ ... drugs? Do you feel you need it?*

Have you ever stopped using drugs? or cut down?

If Yes: *how did it happen? what else was going on in your life? What was it like?*
 if No: **Ever started using more?** *How come? What else was going on in your life?*
How come you keep using drugs? *Do you think you'll always use drugs?*
Would you say drug use has changed your life in any way? *Good/ bad effects?*
Why do you think young people use drugs?

DRUG £

How did /do you get.... the drugs? *From who? friends?*
How much did/do you spend on drugs? *per week?*
How did/do you get the cash together? *How much money did/do you get from job/benefits/parents? Any other way of making money?*
Have you ever stolen or done anything illegal in order to buy drugs?
What did you do? With whom? How often? How much £ did you make and what did you spend it on?
Have you ever sold anyone drugs? *or do you ever sort your friends out?*

OFFENDING

Have you ever done any of these things? (See list below which they will be handed)
 if No: *do you know anyone who has? What is the difference between you and them?*
 If Yes: **Which ones?** I write down numbers +follow up ... **Anything else** that's not on the list?
Can you tell me about one of the first times you did ...any of these things?
What happened? Who were you with? How old were you? What else was going on in your life at the time?
Tell me about some of the other things you have done since then, (how your offending changed) as you got older? *What happened? Who were you with? How often? How old were you? What else was going on in your life at the time? (family? School? Friends? Personal life? Activities/ Lifestyle? drink/drugs/offending?)*
Had you ever been drinking /taking drugs when you did any of these things?
Tell me about it. What were you doing? What taking? How much? Who with? How often?
Do you think it (drinking drug use).... had anything to do with what you did?
Have you done any of these things (crimes on the list) recently?
 If No: *Have you stopped doing crimes? Or reduced? How come? what else was going on in your life at the time?*
 If Yes: **what have you been doing?** *How often? With who? What happened?*
How come you keep on doing crimes?
What do you get out of it.... (crime)?
How important is all this (crime) in your life?
Have you ever been referred to the children's hearings system, had contact with social worker, been arrested by the police, been charged with an offence, been in prison? *Tell me a bit more about that? when was that? What was that for? How was it? what do you think about...? Do you think that changed anything? (had an affect) How?*

DRUG USE AND OFFENDING [need to Summarise what they've said with regard to the time patterning of their substance use and offending and try to tie in drug use and offending with significance, meanings, beliefs, peer activities and lifestyles.]

So you did __ at __ and this... at this age? Why do you think that happened at that time?

So you used to __ and __ when you were __? What did each mean to you? Both important?

Do your drug use and offending go together? Linked? Think they're related in any way? How?

both part of lifestyle? One without the other? How come? Or

FRIENDS

Who are your friends? (where do you know them from?)

What do your friends do? Main activity.

Have your friends used any of these (cigarettes, alcohol, drugs) on list?

Tell me more about that ... Any friends who don't use...? How come?

Have they done any of the crimes on that list? Tell me more about that...

Tell me about what you get/got up to when you spend/spent time with your friends? *Where do/did you hang out? What do/did you do?*

How does drinking/drug use/offending fit in with that?

Do you smoke/drink/take drugs/ commit crimes together?

Have you or any of your friends been in a gang?

FAMILY

Tell me about the neighbourhood you grew up in?

What was family life like before you were 12?

Tell me about some of the major things that have happened to you and your family? Any particularly good or bad experiences? How have you dealt with this? (coped) How did you feel? What did you do? Did you get help? Depression? Self harm? Eating disorder? How does this fit in with your drug use/offending?

What about life when you were a teenager? Tell me about your relationship with your parents (12+?)

Have your parents/family, do they used any of these substances? How much? do they know you smoke/ drink/ take drugs? If yes: do they mind? do you ... with them?

Have your parents/ family done any of these crimes?

SCHOOL

Tell me about what school was like for you? What did you like/dislike?

What were you like when you were in school? How did you behave?

What did the other kids/teachers think of you? Did you get in trouble or skive off school? What did you do when you were skiving off?

FUTURE

Where do you see the future going for you?

What would you like to be doing in a few years time?

Do you see drug use/offending as being part of your future?

APPENDIX D



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22nd June 2005

Dear

You and 4,000 other people your age have kindly taken the time to fill in a confidential questionnaire about yourselves for the Edinburgh Study once a year. This year instead of a questionnaire we would like to come and talk to a smaller number of you in person. This gives you the chance to tell us about your experiences in your own words.

We would really like you to take part. I would like to arrange to meet with you at a time and a place that suits you best. We will talk about your spare time activities, your friends and family and other experiences you have had. It should only take around 45 minutes. Everything you say will remain completely confidential.

In return for taking part in an interview, we will give you a £10 high street voucher which you can spend in a range of shops, including HMV, JJB Sport, New Look, Boots and many others.

I will phone to try and speak with you in the next few days to arrange a time and place that suits you. If you would prefer to phone or email you can get me on 0131 650 8183 or e.v.aston@sms.ed.ac.uk.

Your opinions and experiences are really important,
I look forward to talking to you,

Many Thanks,

Liz Aston.

Interested in a £10 voucher?



Have you ever tried any drugs?



**Did you start Secondary school in 1998 and fill out
questionnaires for *The Edinburgh Study*?**



...If so we would like to talk to you...

Please phone Liz

(or the Edinburgh Study office on 0131 6508183)

**Please get in touch and when we meet up for a chat (about 45
minutes) you will be given a £10 High Street voucher (for HMV,
Argos, Boots, New Look and many more shops).**

As always everything you say will remain completely confidential.